DRAFT
Environmental Impact Report

333 CALIFORNIA OFFICE/ RESIDENTIAL BUILDING

EE 81.249
March 1982

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DEPARTMENT OF CITY PLANNING 100 LARKIN STREET · SAN FRANCISCO, CALIFORNIA 94102

DRAFT

ENVIRONMENTAL IMPACT REPORT

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WRITTEN COMMENTS SHOULD BE SENT TO THE ENVIRONMENTAL REVIEW OFFICER, 45 HYDE STREET, SAN FRANCISCO, CA 94102

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I. SUMMARY

A. PROJECT DESCRIPTION

The proposed 333 California Building would be a mixed-use development containing residential condominium units, office space, retail/commercial space and parking. The project site is located at the center of San Francisco's Financial District in the middle of the block bounded by California, Battery, Pine and Sansome Streets. The site is located in Assessor's Block 261, lots 2, 6, 13 and parts of 1 and has an area of approximately 44,900 square feet. The project sponsor, Norland Properties, desires to provide office/residential space that would be competitively priced in the San Francisco market and would contribute to the City's skyline and quality of architecture.

The proposed project consists of a 600-foot, 47-story building with twin towers forming the upper 11 stories. The gross floor area would be approximately 879,520 gross square feet. The main entrance would be on California Street and additional entrances would be on Pine, Sansome and Battery Streets.

The construction of the proposed project would entail the demolition of 3 office buildings, 333 California, 141 Battery, and 244 Pine, and a parking lot with 139 spaces. Approximately 460 workers would be displaced.

The project would contain about 598,450 gross square feet of office space (542,200 net square feet), 121,780 square feet of residential condominiums, and 18,500 square feet of retail (e.g. shops and restaurants) space fronting on a T-shaped pedestrian arcade on the ground floor and lobby. Approximately 77,000 square feet would be below ground in 2 basement levels that would provide 139 parking spaces and 4 loading docks. An additional 4 loading docks would be on street level on Pine Street.

The project sponsor estimates that construction would cost approximately $80 million in 1981 dollars and take about 2½ years.

The site is located in a C-3-0 (Downtown Office) District. The basic floor area ratio (FAR) permitted is 14:1. An additional 52,880 square feet is available from air rights transfer from adjacent buildings, and 154,600 square feet is available in bonuses that would be used for residential space. Use of these bonuses would result in an FAR of about 17:3.

The height and bulk district for the site is 600-I which allows a maximum building height of 600 feet, a maximum length of 170 feet and a maximum diagonal dimension of 200 feet above a height of 150 feet. The project sponsor is seeking Conditional Use Approval for a 27-foot 4-inch exception to the diagonal dimension and a 57-foot 4-inch exception to the length. The proposed project maximum diagonal dimension and length is 227 feet 4 inches above a height of 150 feet.

As part of the project, Norland Properties contributed $444,450 to the City Housing Authority for the rehabilitation of 238 low-income housing units in San Francisco.

B. INITIAL STUDY

An Initial Study was prepared for the 333 California Building project to identify potential environmental issues resulting from the proposed project; these issues are covered in this DEIR. Certain potential environmental issues were determined to be insignificant and are therefore not addressed in this EIR, including operational noise, biology, health hazards, archaeological resources, public services and utilities, and topography, soils and geology. A copy of the Final Initial Study is attached to this report as Appendix A, page A-1.

C. IMPACTS

1. Land Use

The project would comply with zoning, height, and floor area requirements of the Planning Code. An exception is sought for bulk through Conditional Use Authorization. The project would add approximately 545,000 net square feet of office space, 18,500 square feet of retail space and a maximum of 55 housing units to the downtown office district (page 52).

2. Visual Quality and Urban Design

The project's twin towers would be visible in the City skyline from most perspectives as part of the downtown highrise profile. The project would obstruct views outward from the upper floors of some adjacent buildings such as 220 Sansome, 351 California and 311 California (page 54).

3. Employment, Housing, and Fiscal Factors

The project would create permanent employment for 2,700 persons, including 2,400 office jobs and 300 jobs in retail sales, janitorial services, building security and residential-related services. An additional, approximately 2,640 jobs in the Bay Area would be indirectly created through the multiplier effect. Demolition of the 3 buildings currently on the site would displace about 460 employees (page 66).

The demand for housing in San Francisco would be increased by an estimated 360 to 720 newly employed San Francisco workers who might choose to live in the City. As a result, the project may induce 257 to 532 households to move into the City. The project would include the provision of 55 new housing units on-site and rehabilitation of 238 units of public housing in San Francisco (page 67).

The project's potential in increased revenues for the City could range from $1.1 million to $1.8 million annually.

4. Transportation, Circulation, Parking

The proposed project would generate about 10,500 person trips per day, approximately 20% of which would occur during the 4 p.m. to 6 p.m. peak hour (page 78).

The proposed project would generate about 730 peak hour auto trips, increasing traffic volumes at nearby intersections by 1% to 2% (page 78). Intersections adjacent to the project site operate at an "A" level of service.

The proposed project would generate an increase of approximately 580 trips or 1% to 3% in the projected peak hour load for MUNI for 1985 (page 86) depending on the specific line this increase would contribute to lengthening of peak hour crowded conditions.

The proposed project would generate a parking demand for about 710 long-term and 150 short-term spaces. This increased parking demand could not be met within a 4-block radius of the project. Some modal shift in transportation patterns might result (page 89).

During the 30-month construction period, parking lanes fronting the project site on Battery and Sansome Streets and portions of sidewalks on California and Pine Streets fronting the project would be closed which could disrupt on-street parking and pedestrian flow.

5. Noise

During construction, noise and vibration-generating activities, particularly the use of jackhammers (in the demolition phase) and pile drivers (during foundation work), would create exterior noise levels of up to 95-105 dBA (page 99) within the project site. Noise levels inside offices adjacent to the project site would reach 91 dBA in the lower floors. Normal work routine would be disrupted at these times.

6. Air Quality and Climate

The project would result in a mixed pattern of moderate windspeed increases and decreases on adjacent streets, with the effect dependent on wind direction and location (page 106).

7. Energy

The total annual energy use within the proposed project would be 1.13 billion BTU. The annual energy consumption of auto traffic generated by the project would be 66 billion BTU, or the equivalent of 12,000 barrels of crude oil (page 112).

D. CUMULATIVE EFFECTS OF DOWNTOWN DEVELOPMENT

The proposed 333 California project would be part of approximately 12 million gross square feet of downtown office space under construction or proposed to be added to the existing 53.4 million gross square feet of office space in the Downtown as of October 1981 (see pages A-50 and A-51 for total office growth in the City). Cumulative downtown development is expected to increase the demand for housing, parking facilities, public transit services and public services and utilities. This development would increase traffic congestion and concentration of pollutants from auto emissions.

E. MITIGATION MEASURES

Mitigation measures proposed as part of the project include:

The project sponsor would encourage the use of car/van pools and flexible working hours (page 119).

The use of hexagonal tower shape, multiple setbacks at the upper levels, and twin residential towers are all design features that would reduce the impact of the structures on ground level winds (page 122). Without these measures, windspeeds would increase.

The hours for pile driving during construction would be restricted to lessen disruption in nearby office buildings (page 121).

Provision of 293 housing units (page 118).

Energy conservation features and variable air volume air conditioning system (page 123).

Internal security measures to minimize the need for police services (page 124).

F. ALTERNATIVES

1. No Project

The project site would remain as it is with a parking lot and the current 333 California Building, the 141 Battery Building and the 244 Pine Building. No environmental impacts associated with the proposed project would occur. The project sponsor has rejected this alternative as inefficient and uneconomical (page 127).

2. The Proposed Project Without the Removal of 333 California

In this alternative the existing 333 California Building would be retained and the proposed building would be constructed with the same basic design as detailed in the project description except for the California street frontage. In order to maintain the same double tower design form as the proposed project 2 floors of office space would be removed in the podium (a loss of 44,400 square feet. The alternative building would contain 545,350 square feet of office space and 121,420 square feet of residential space (the same as the proposed project).

An entrance to the proposed project would be at 333 California as a corridor extending from California Street to the proposed lobby. Environmental impacts would be about the same with this alternative as the proposed project.

The project sponsor rejected this alternative because it would not provide a major public access from California Street to the project's pedestrian/retail arcade (page 131).

3. The Proposed Project Constructed Under Interim Controls, No Residential Units

This alternative would provide a single building (no twin towers) that would allow 627,000 square feet of office space and no residential units. The building would have 81,300 square feet less than the proposed project or about 10% and 26,000 more office space (4%). The FAR for the building would be 15:1 by using development transfer rights. No bonuses would be available for residential use. The twin tower design would not be part of this alternative.

Environmental impacts associated with this alternative would be less than the proposed project with the exception of an increased demand for housing and visual effects with a single tower would be different. The project sponsor rejected this alternative as it does not meet the objectives of providing a mixed-use building, achieving a maximum return on investments, and creating a twin tower design feature on the upper 11 stories (page 132).

4. Project Constructed Under Interim Controls With Maximum Residential Units

This alternative includes in the project design the maximum possible residential square footage of 164,800 square feet. The building form would be similar to the proposed project except that the space between the residential towers would be eliminated, giving a bulkier appearance. An additional 60,400 square feet of residential space would be provided.

This alternative would have the largest total floor area of all the alternatives (about 9,200 more than the proposed building). Office space would be about 50,400 gross square feet less (about 8.5%) than the proposed project. The additional residential space would generate fewer traffic impacts than the proposed project; environmental impacts on public services, however, would increase. The urban design impacts would be different from the proposed project as the twin tower design would be absent. The project sponsor rejected this alternative as the original design objectives would not be met in a bulkier structure and office space would be less than the proposed project (page 134).

5. Interim Controls, No Exceptions to Planning Code

This alternative is similar to Alternative 3 in terms of total square footage, however, no exceptions to the Planning Code are requested. The form of the building conforms to the height and bulk requirements which precludes the hexagonal-shaped plan with maximum square footage (page 136).

The environmental impacts for this alternative would be the same for Alternative 3 except for visual impacts as the form of the building would be more box-like and square.

6. Alternative Conforming to Guiding Downtown Development

This alternative is designed to conform with the guidelines established in Guiding Downtown Development. The height of the building would be limited to 500 feet and the bulk diagonal dimension is limited to an average diagonal of 200 feet above a height of 65 feet. About 133,380 square feet of residential space would be constructed on site and a balance of 221,200 square feet of housing would have to be provided elsewhere in San Francisco.

About 588,000 square feet would be available for office and commercial space. The FAR calculations must include the parking space designated for office and commercial use which would total 608,000 with a FAR of 13.6:1. The total FAR of the building, including residential space, would be 16.5:1.

This alternative would feature a 39-story tower that would emerge from a 1-story base. There would be set-backs on all four corners of the building at the 31st floor where the residential units are first located. The building would feature about 23,920 square feet of open space on the roof of the first floor level, the plaza area between 311 and 351 California, and 5 terraces in the tower.

The impacts associated with this alternative would be less than the proposed project. Visual impacts would be different as the building would be 100 feet less than the proposed 333 California building and would not have a twin tower.

This alternative was rejected because it would not meet the objectives of the project sponsor which include using the maximum FAR currently allowed for office; creating the twin-tower design and maximizing a return on investment.

7. Loading Dock and Parking Variation

The current regulations for loading facilities call for 8 off-street loading spaces. The proposed project provides 4 loading spaces on Pine Street and 4 delivery or pickup truck-sized spaces in the first basement level. Two alternative arrangements of loading dock and parking facilities were considered: all loading docks on street level and all loading docks on the first basement level.

These variations were rejected by the project sponsor because they would either eliminate parking spaces or retail/commercial space and increase vehicle circulation conflicts (page 143).

An additional alternative that examined the use of the garage for spaces based on the City Planning Code of 1 space for 4 residential units x 150% (about 21 spaces) and no parking for commercial and office use. This alternative would allow for additional office, commercial and/or storage space in the basement, but would not meet the project sponsor's objectives of providing one parking space per residential unit and parking spaces for office and commercial space tenants.

II. PROJECT DESCRIPTION

A. LOCATION

The proposed 333 California Building would be located in the center of San Francisco's Financial District in the middle of the block bounded by California, Battery, Pine and Sansome Streets. The site is located in Assessor's Block 261, lots 2, 6, 13 and parts of lot 1 and is approximately 44,920 square feet. The general location of the project site is shown in Figure 1, page 10. The precise location of the project site is shown in Figure 2, page 11.

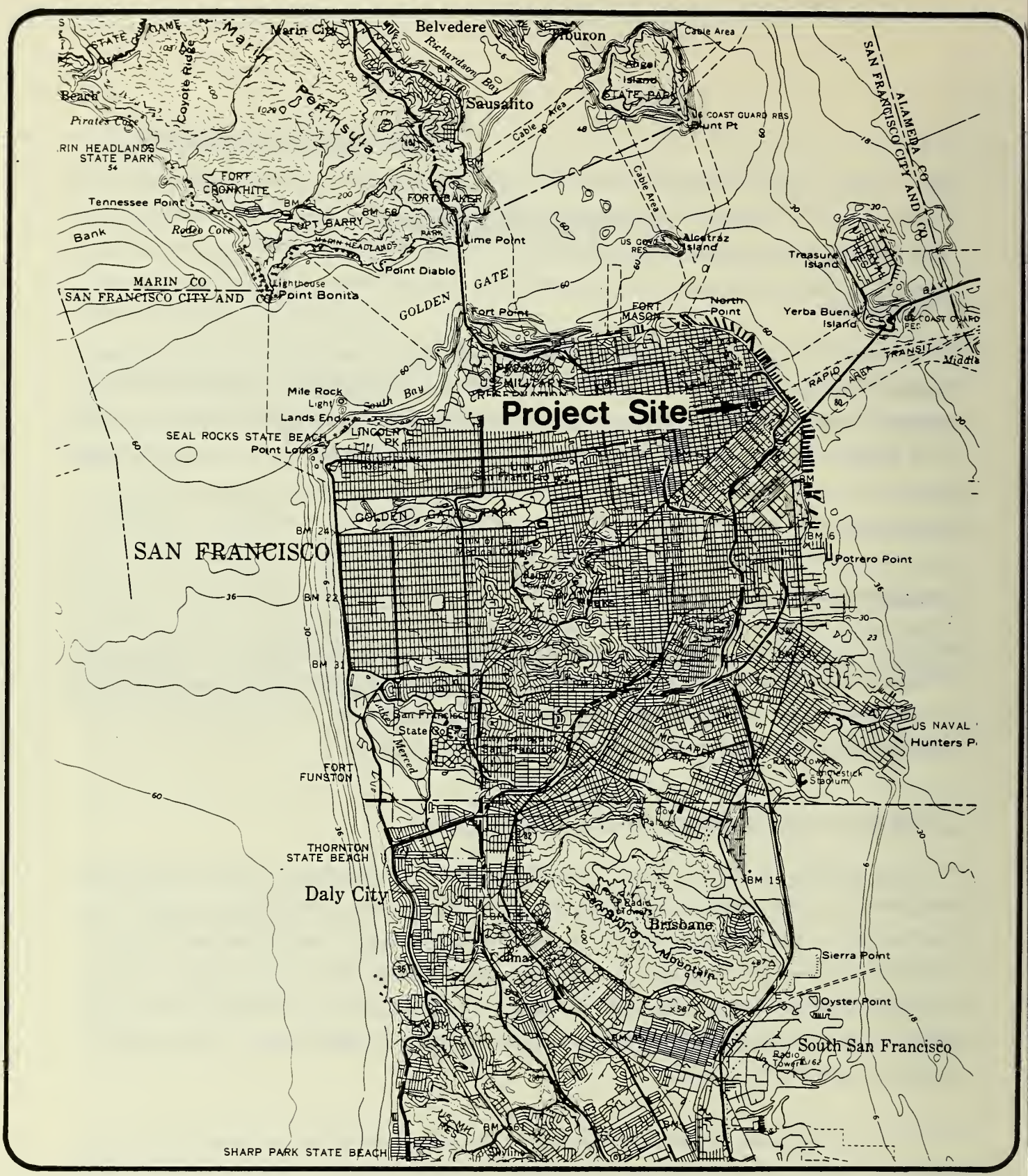
B. OBJECTIVES OF SPONSOR

Norland Properties, project sponsor, wishes to construct a mixed-use office/residential/retail high rise in downtown San Francisco which would make a positive contribution to the City's skyline and quality of architecture. It is the intent of the project sponsor to achieve a profitable return on its investment.

C. PROJECT CHARACTERISTICS AND SCHEDULING

The total project, including office, residential, retail, mechanical, service and parking space would be approximately 879,520 gross square feet. About 598,450 gross square feet of office space, 121,780 gross square feet of residential space and 18,000 usable square feet of ground level and first floor retail space would be provided. The building would rise 47 stories above grade (Figures 3, 4, 5, 6 and 7, pages 12, 13, 14, 15 and 16) and would have 2 levels of parking below grade containing 139 spaces (half of which may be used by residents) and 4 loading docks.

The first 2 levels are planned for lobbies (1 lobby would be for exclusive use of the residential portion of the project), retail space, mechanical space, and access to parking and truck service (Figures 8 and 9, pages 17 and 18). The ground-level plan includes a T-shaped pedestrian arcade running through the block from east to west which would connect to Battery, Sansome, and California Streets. Retail (e.g. shops and restaurants)



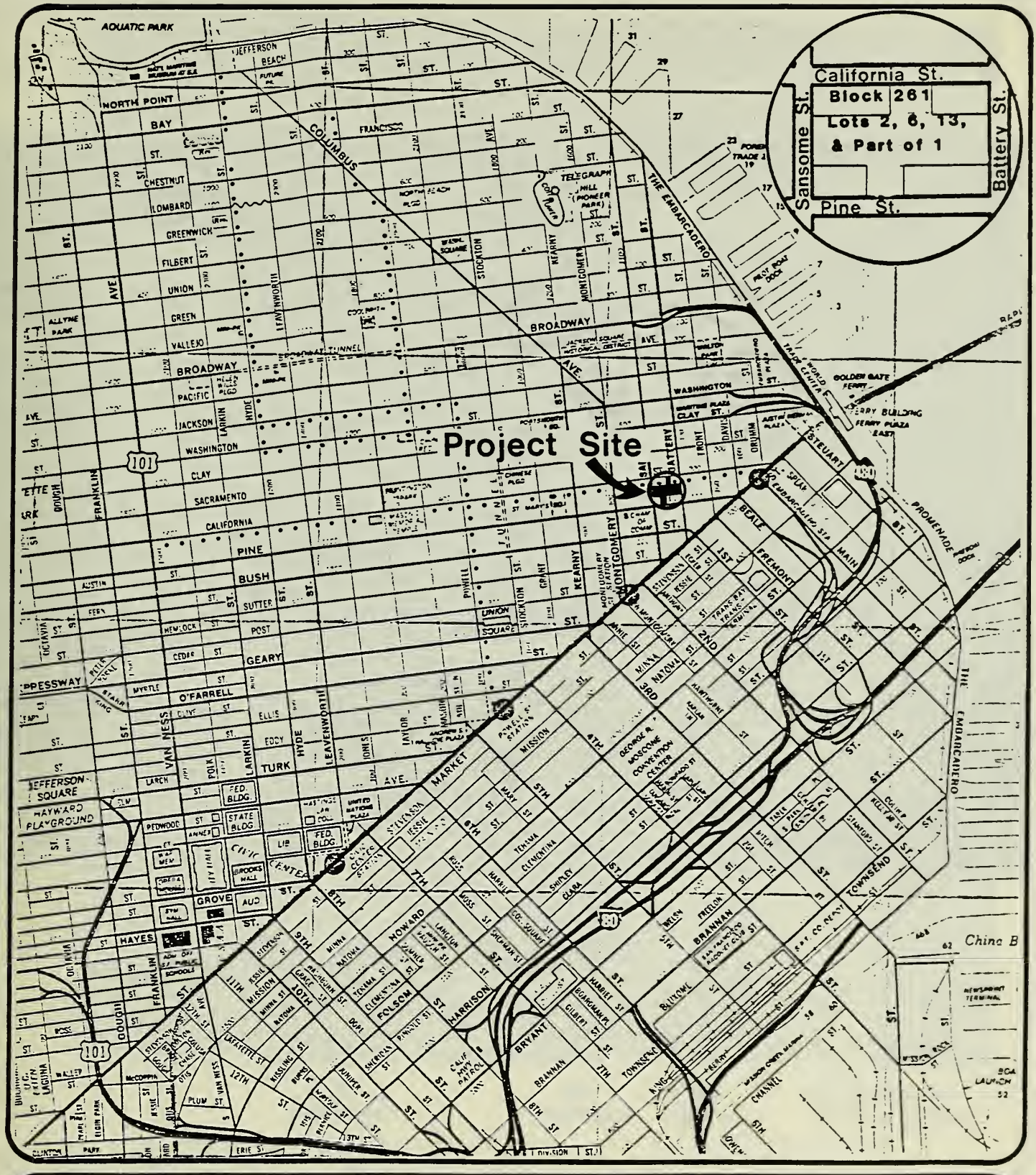
Regional Location Map

North

Scale 0 ½ 1 2 Miles

Source: U.S.G.S.

Figure No.1



Site Location Map

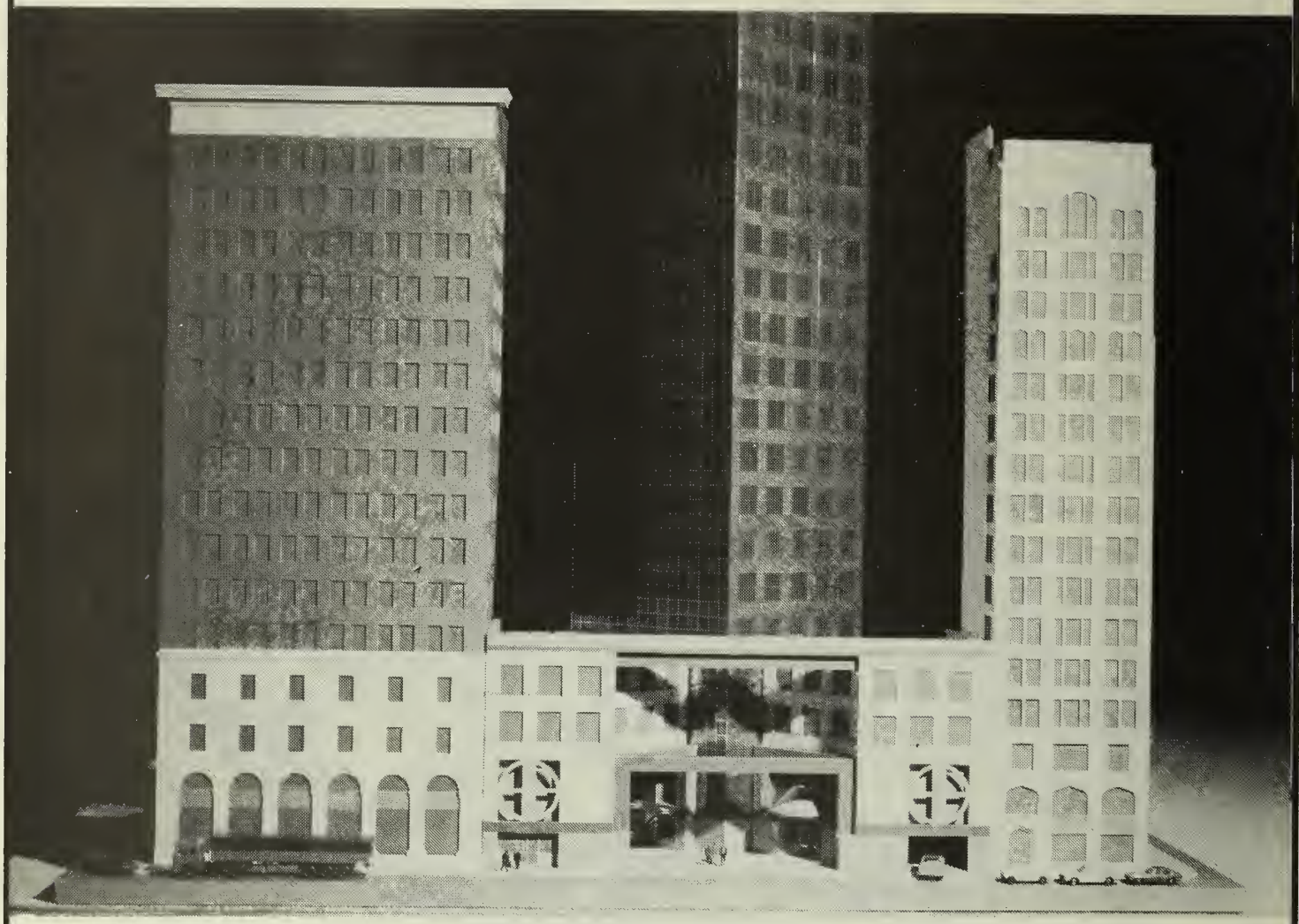
Basic map reproduced by permission of the California State Automobile Association, copyright owner.

North

0 500 1000 2000

Scale Feet

Figure No. 2



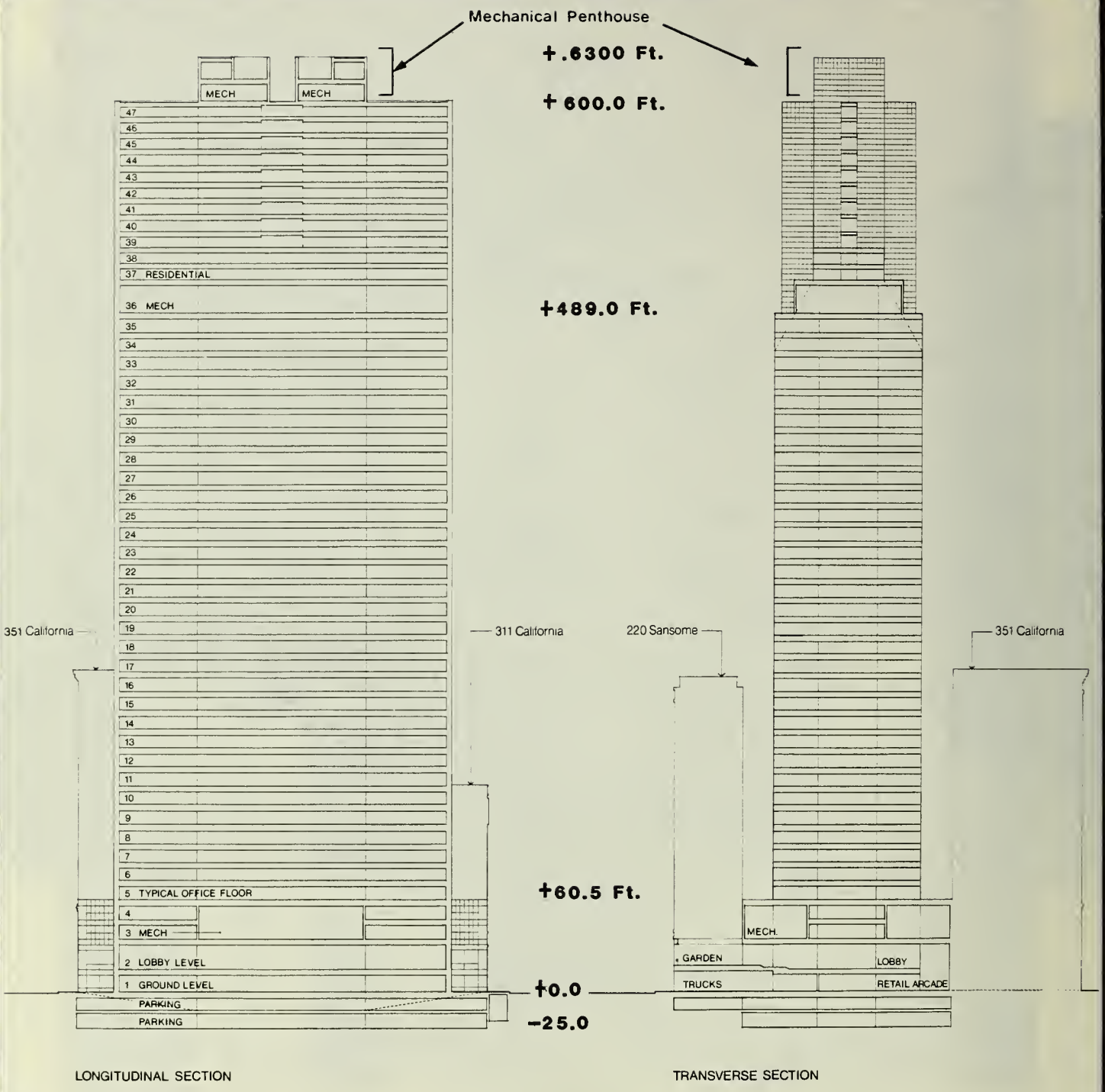
Photograph of Project Model (looking east across Sansome Street)

SOURCE: Skidmore, Owings & Merrill

Figure No. 3

Model of Proposed 333 California Building (Looking Southwest)

Figure No.4



LONGITUDINAL SECTION

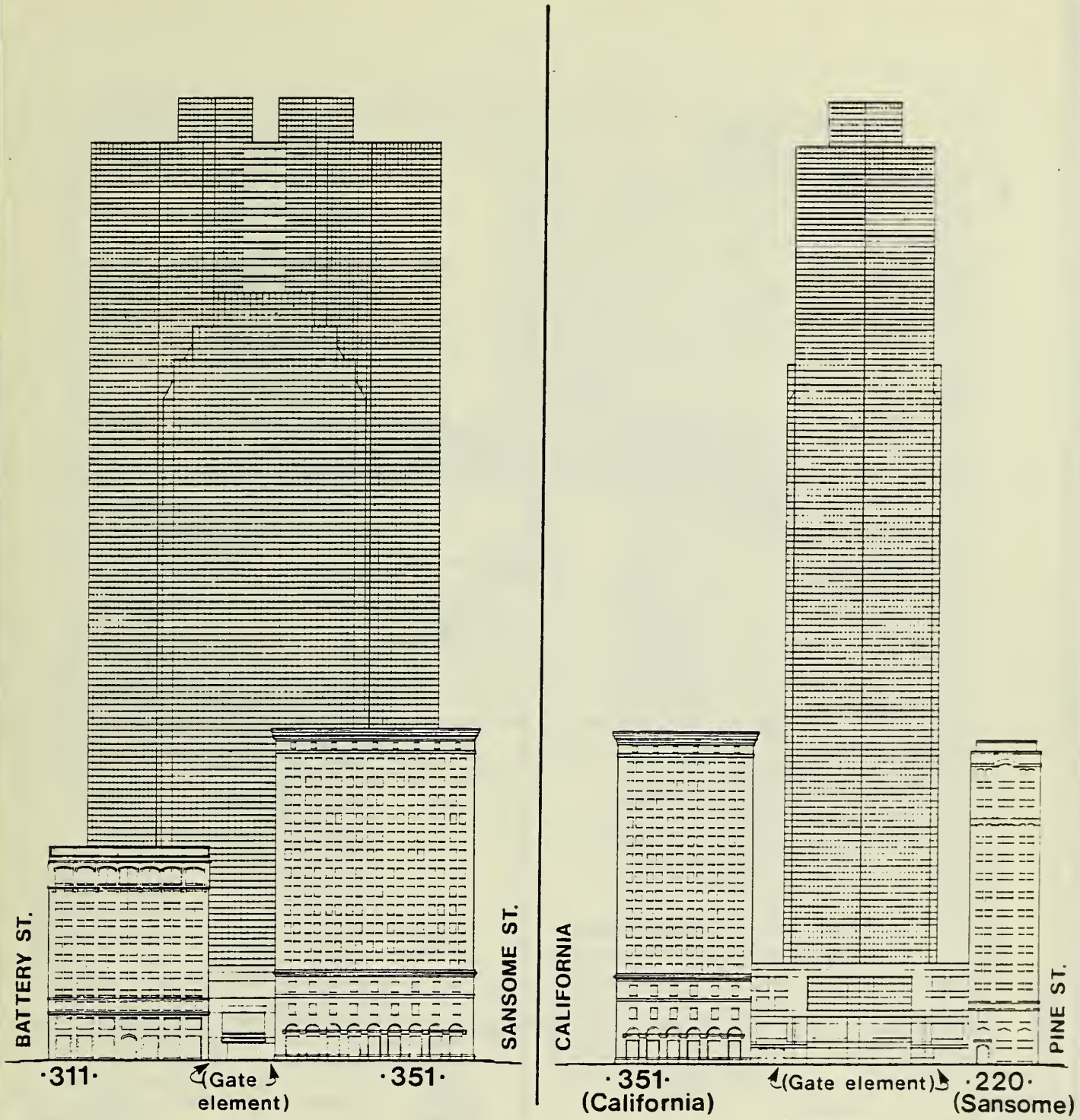
TRANSVERSE SECTION

Building Sections

0 20 40 80
Scale Feet

Figure No. 5

Skidmore, Owings & Merrill, Architects

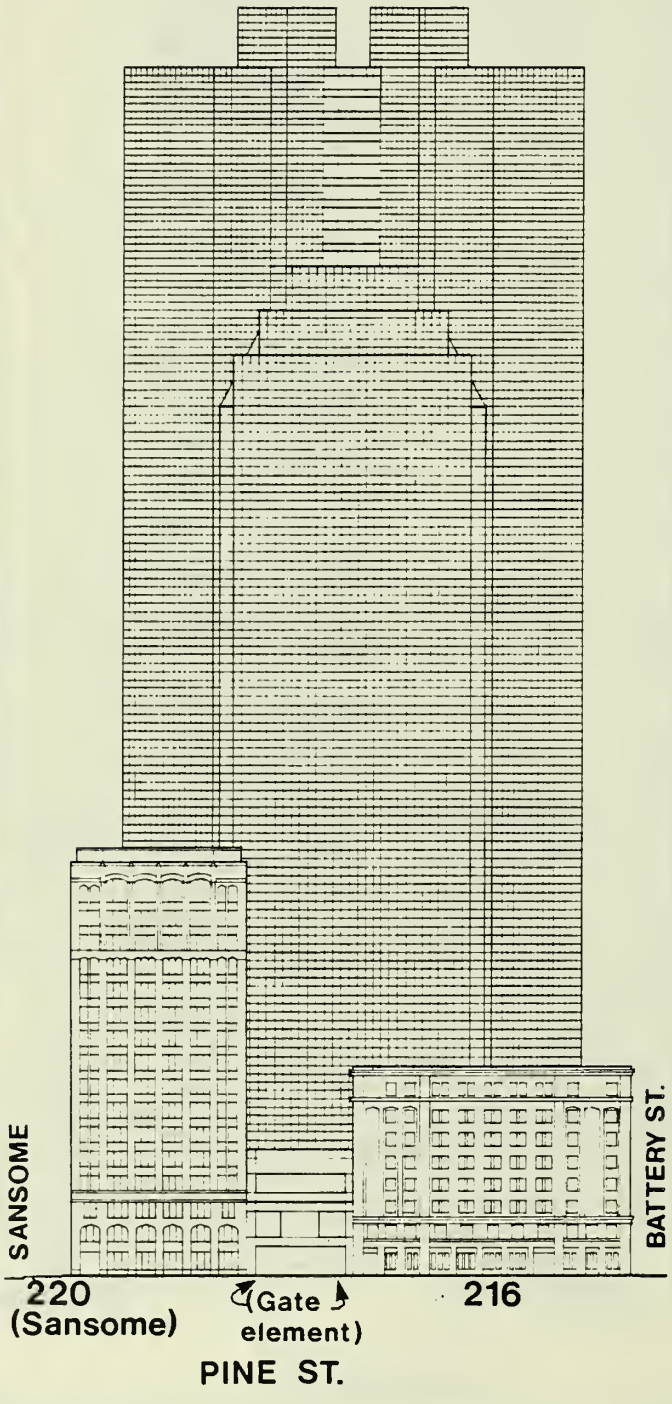


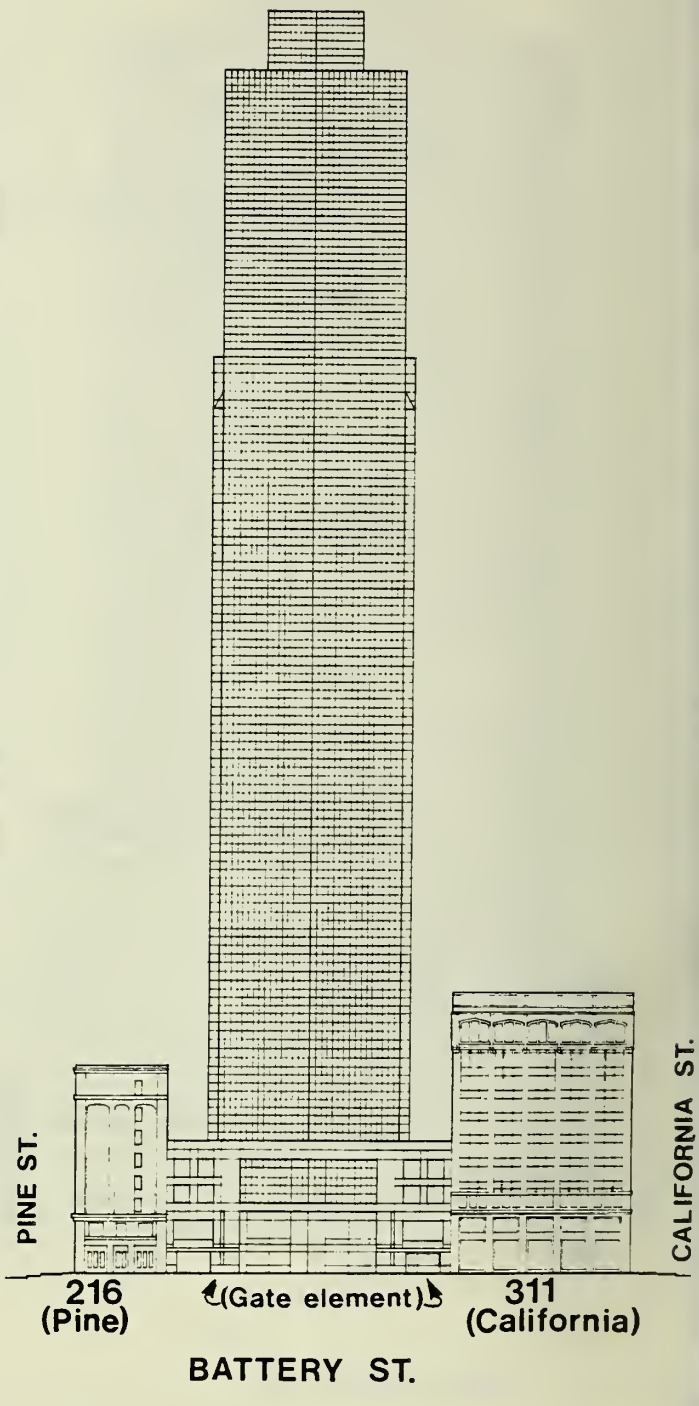
Building Elevations

No Scale

Skidmore, Owings & Merrill, Architects

Figure No. 6



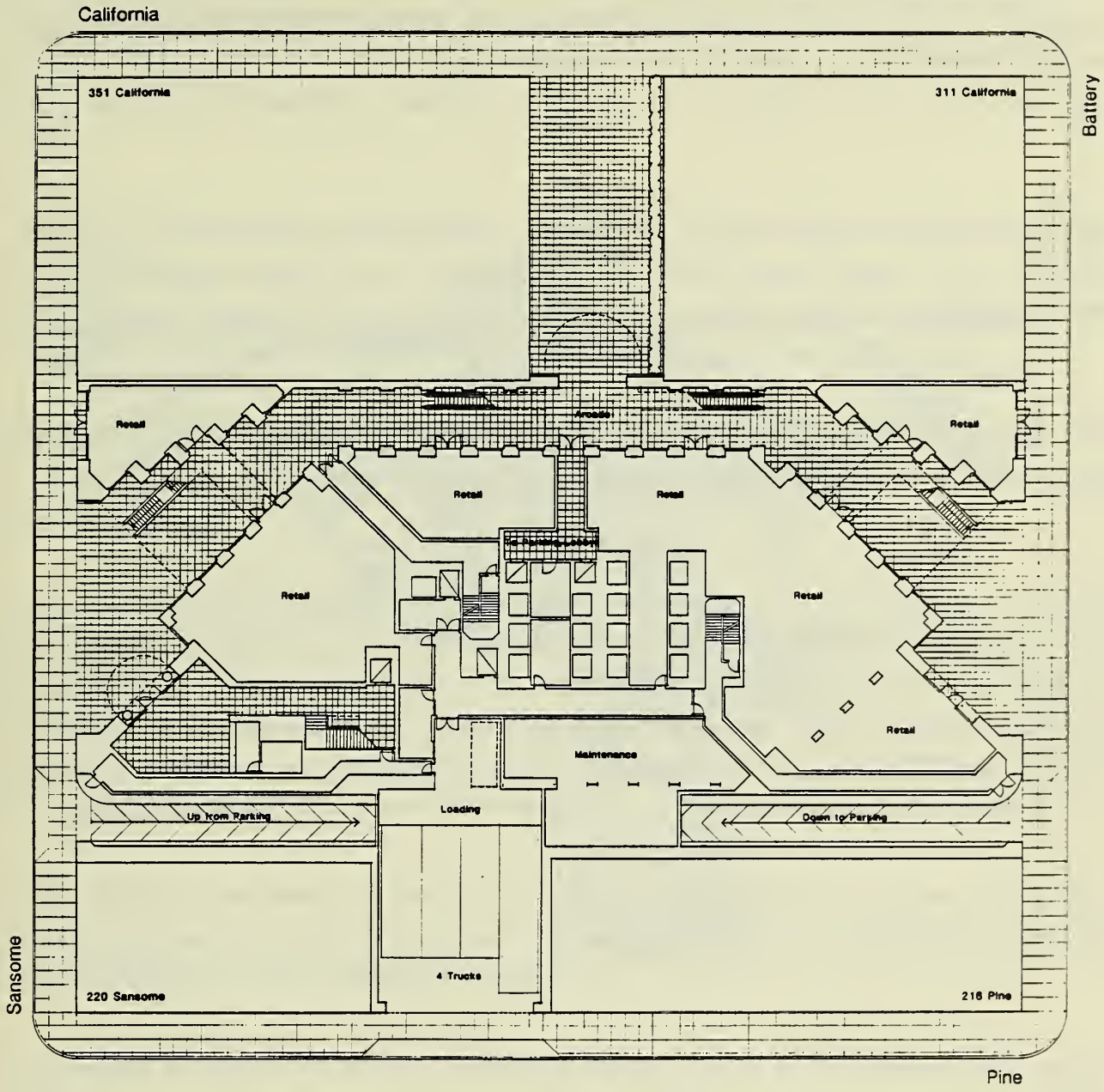


Building Elevations

No Scale

Skidmore, Owings & Merrill, Architects

Figure No. 7



Ground Level Floor Plan

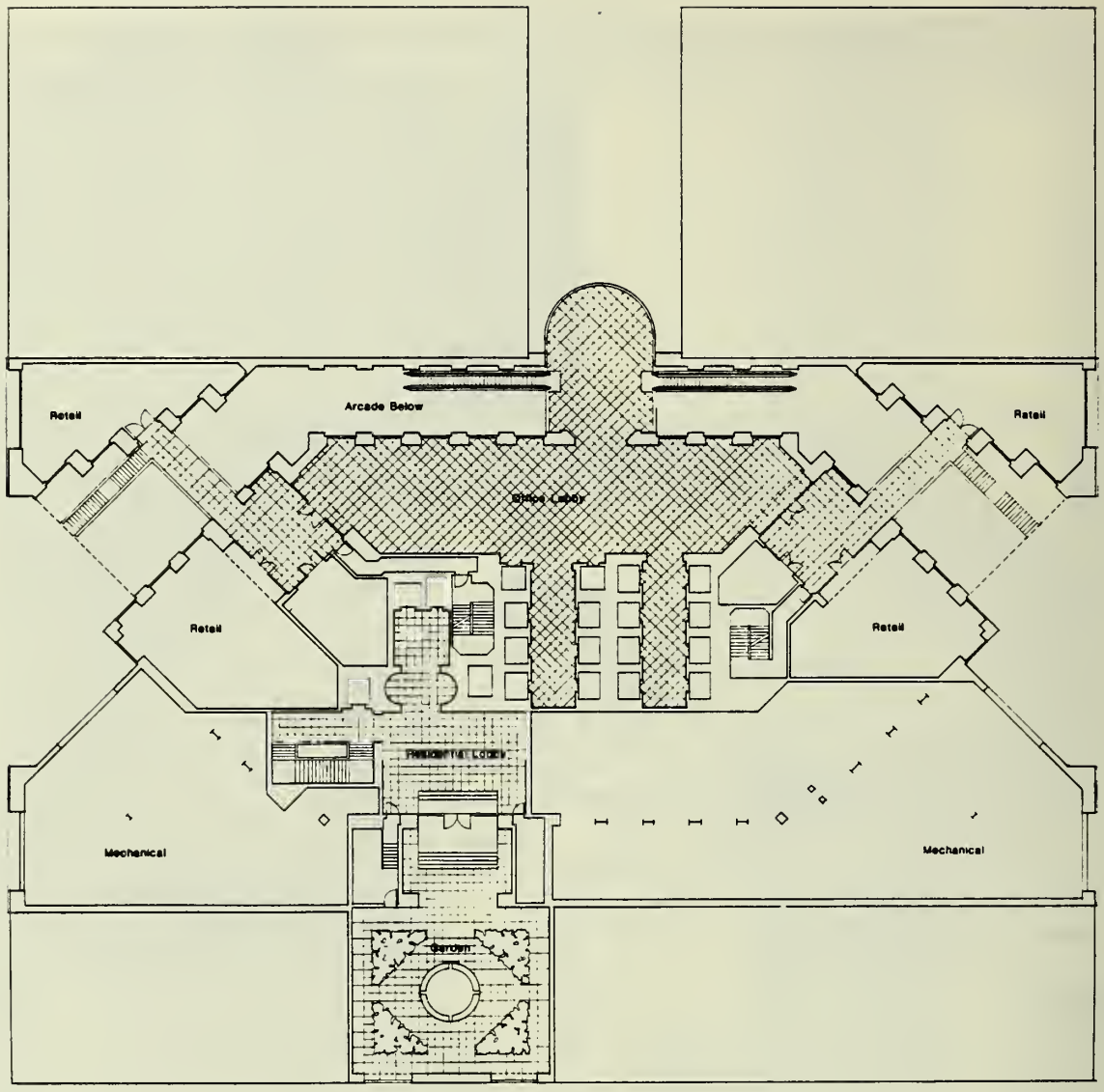
North

0 20 40 80

Scale Feet

Skidmore, Owings & Merrill, Architects

Figure No. 8



Lobby (2nd Floor) Floor Plan

North

0 20 40 80

Scale Feet

Skidmore, Owings & Merrill, Architects

Figure No. 9

space would front on this arcade. Street level loading facilities would be accessible on Pine Street, and vehicles would enter the project from Battery Street and exit to Sansome Street. A private garden terrace, (approximately 47 by 50 feet, or 2,350 square feet) for exclusive use by the residents, would be located above the loading dock facilities on Pine Street.

The next 2 floors (podium office floors) are planned for office space and would contain about 35,400 gross square feet on the 3rd floor and 26,400 gross square feet on the 4th floor (Figure 10, page 20). These floors would fill the central part of the block and are designed to relate in scale to the existing buildings on the 4 corners of the block.

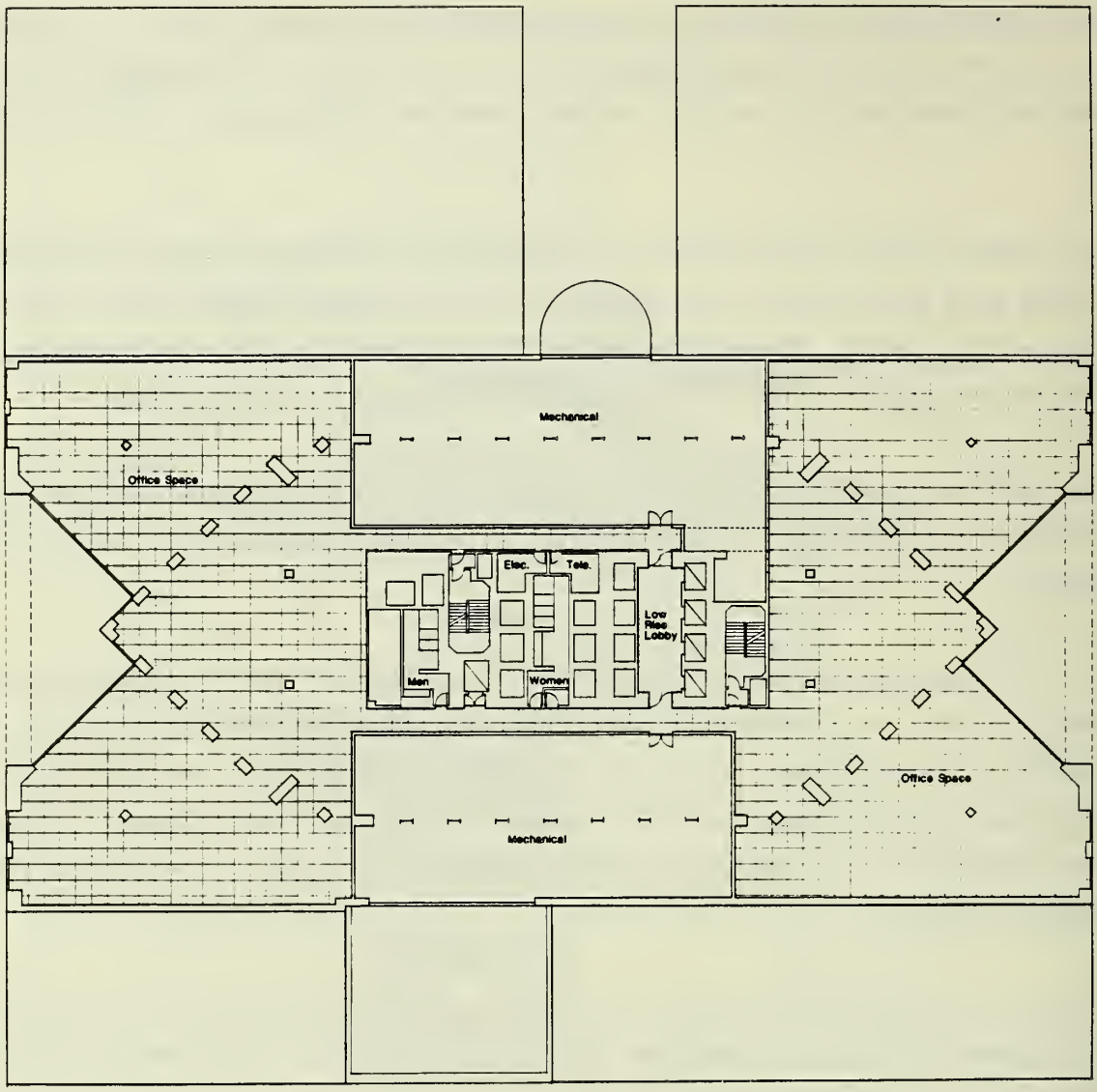
Above the podium office floors would be 31 office floors in a hexagonal-shaped plan with a central elevator core (Figure 11, page 21). Each floor would contain about 17,400 gross square feet.

Above a full floor of mechanical equipment (floor number 36), 2 separate towers connected by bridges on each floor designed for housing units would emerge from the office building (Figure 12, page 22). The 37th floor would contain the first level of condominiums and common lobby area for residential occupants. Floor 38 would also have a common area and floor 39 would have approximately 1,710 square feet of open terrace for use by all tenants.

The 11 floors in the tower, are designed to contain up to 2 units in one tower and up to 3 units in the other for a total of 5 units per floor or up to 55 units in the building (a total of 110,450 gross square feet of residential space).

The building is planned to conform to the 600-foot height limit and the office tower would be 100 feet x 227 feet 4 inches at its widest points (the mechanical penthouses are not included in legal height definition). The tower portion, as it emerges above its surroundings, would have a facade of stone material. At the base of the building, the podium would be executed in a combination of stone and glass materials.

The entrances to the project on California, Battery and Sansome Streets would be framed by a "gate element" constructed of light-colored granite (Figures 3, 6 and 7, pages 12, 15,



Low Rise(Base) Office Floor

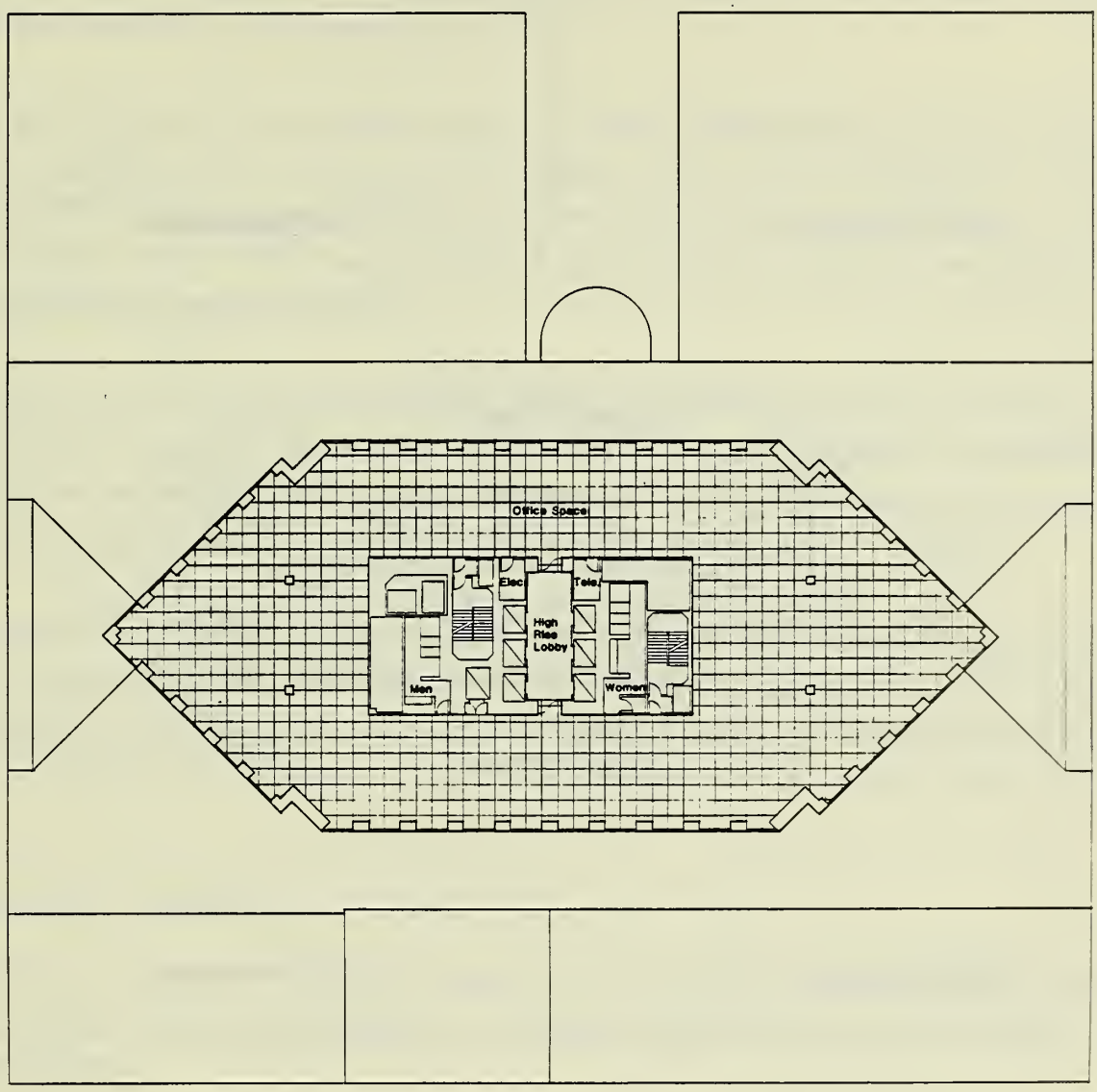
North

0 20 40 80

Scale Feet

Skidmore, Owings & Merrill, Architects

Figure No. 10



High Rise Office Floor

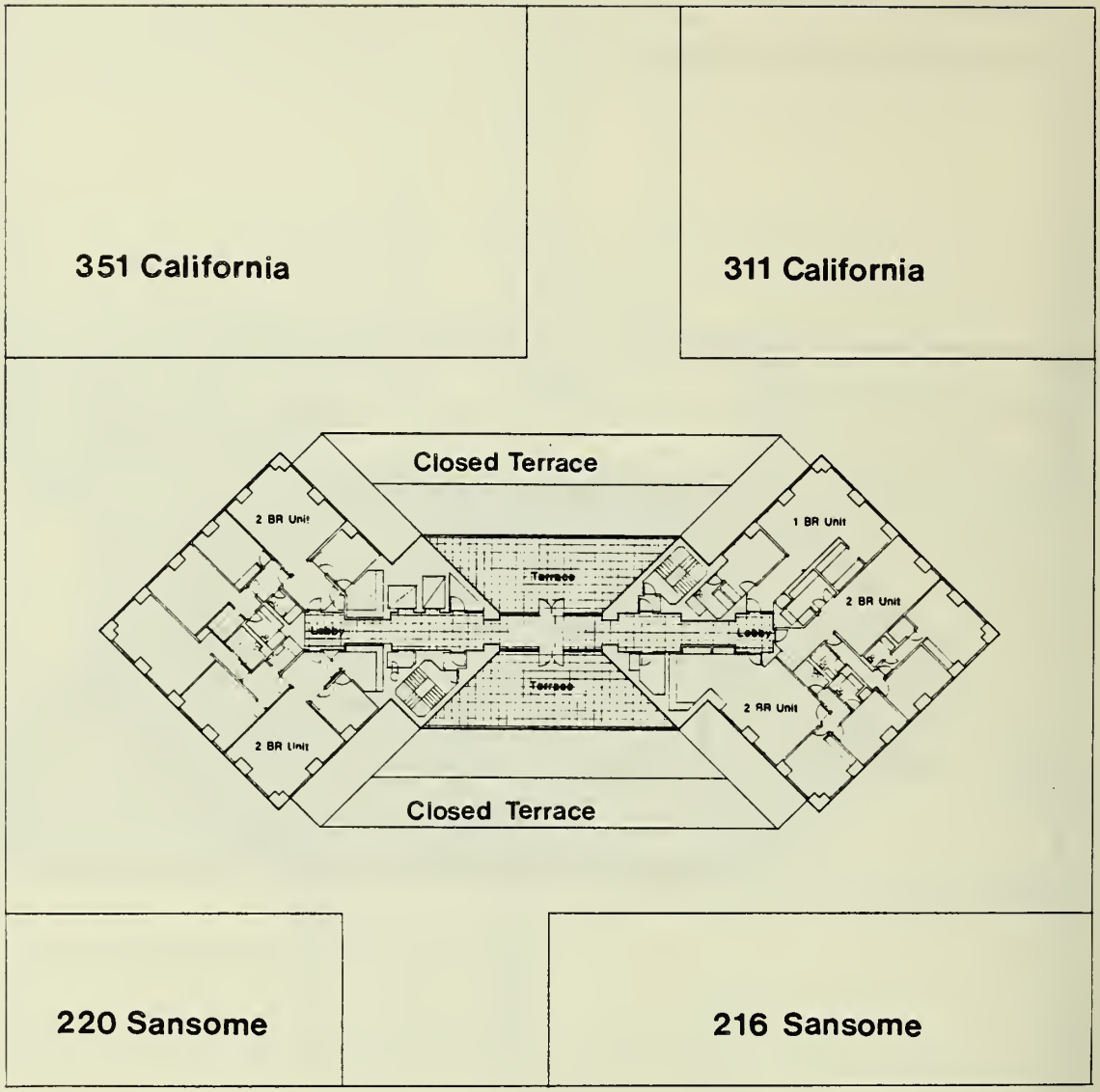
North

0 20 40 80

Scale Feet

Skidmore, Owings & Merrill, Architects

Figure No. 11



Typical Residential Floor

North

0 20 40 80

Scale Feet

Skidmore, Owings & Merrill, Architects

Figure No. 12

and 16. The design of the entrances includes a portion of the building facade which is not indented with the contours of the podium and tower portion of the building but rather frames each entrance with a gate-like structure.

The proposed project site currently contains 3 office buildings (one of which contains 2 levels of parking) and a parking lot (the garage and lot provide 300 spaces). The 3 buildings (333 California, about 32,300 square feet; 141 Battery about 123,800 square feet; and 244 Pine, about 17,500 square feet) and the parking lot would be demolished and replaced with the proposed structure.

The architectural firm for the proposed project is Skidmore, Owings & Merrill, with offices in San Francisco. The estimated construction cost of the project is $80,000,000 (1981 dollars) including demolition of the 3 buildings. The development would be expected to occur over a 2½-year period (beginning in late 1982 and completed in mid-1985).

In August 1981, as part of the project, Norland Properties contributed $536,300 to the City Housing Authority for the rehabilitation of 238 low-income, currently vacant public housing units in San Francisco. This contribution is designed to mitigate the potential direct impacts the 333 California Office Building might have on housing supply in the City.

D. REQUIRED APPROVALS

Certification of the environmental impact report by the City Planning Commission following public review and reponses to comments is the first step in processing the proposed project.

The project would require conditional use authorization for bonus floor area for providing residential uses.[1] The floor area calculations for the proposed project are shown in Table 1, page 24. The allowable floor area calculations are indicated in Table 2, page 24.

Conditional use authorization would be required for exceptions to the bulk limits in compliance with the criteria for such exceptions. The maximum diagonal dimension allowed is 200 feet and maximum length allowed is 170 feet above a height of 150 feet.[2]

---

[1] City Ordinance, 240-80, 1 July 1980.

[2] City and County of San Francico, Planning Code, Sections 122, 270, and 271, 1979 Edition.

TABLE 1

FLOOR AREA CALCULATIONS (SQ. FT.)

Proposed Project Levels	Total Building Area	Gross Floor Area*
Mechanical Penthouses (2)	2,450	--
Residential (11)	110,450	110,450
Mechanical (1)	14,890	--
Office Tower (31)	545,350	539,770 + 5,580 residential
Office Podium (2)	61,990	61,630 + 360 residential
Street and Lobby (2)	63,860	53,570 + 4,130 residential
Basement Levels (2)	80,530	650 + 1,260 residential
Total	879,520	777,400
Total Residential =		121,780

* Area as defined in City Planning Code Section 102.8 and used in gross floor area calculations to determine compliance with San Francisco Planning Code, Section 124.

TABLE 2

ALLOWABLE FLOOR AREA

	Square Feet
Base Floor Area at 14:1*	628,910
Development Rights Transfer**	52,880
Floor Area Bonus***	154,640
Total Allowable Area	836,430

* Based on the area of proposed project site of 44,922 square feet X 14 = 628,910 square feet.

** Development Rights Transfers are based on the excess floor area for 311 and 351 California Street buildings. It is calculated by subtracting the size of the existing building from the total allowable floor area for each building. For the proposed project, 42,610 square feet is transferred from 311 California and 10,270 square feet is transferred from 351 California (total 52,880 square feet). Section 127 of the Planning Code.

*** The Floor Area Bonus is applicable to the residential portion of the proposed project and is based on 4 additional multiple building entrances (40,000 square feet), a plaza in the area between 351 and 311, the site of the main entrance to the building (2,760 square feet x 10 = 27,600 square feet) shortening walking distance (12,000 square feet) and low coverage at upper floors (75,000 square feet). Section 126 of the Planning Code.

The proposed project would have a maximum diagonal dimension of 227 feet 4 inches and a maximum length of 227 feet 4 iches above a height of 150 feet.

On 6 July 1981, Norland Properties filed Conditional Use application 81.249CE with the Department of City Planning for authorization for bonus floor area, exceptions to bulk limits and for a planned unit development to permit deviations from Planning Code provisions for measuring open space, the number of loading docks and loading dock space. The exceptions needed are 27 feet 4 inches from the diagonal dimension and 57 feet 4 inches from the length; provision of open space/rear yard in the building that is in other locations than required by code, but equivalent in required size (the open plaza, and open terraces on the 39th floor); a reduction in the number of loading docks on street level from 5 to 4, and a reduction of 5 feet in length for 1 van loading space (20 feet instead of 25 feet) and 4 feet in verticle clearance of 1 van loading space (8 feet instead of 12 feet.)

Pursuant to sections 303 and 304 of the San Francisco Planning Code, a development must meet certain criteria before conditional use authorization may be granted. These criteria include requirements that the development be compatible with the neighborhood and not detrimental to the health, safety and welfare of people living or working in the area or injurious to property in the vicinity. Specific criteria for Planned Unit Developments include the following: that the parcel include an area of at least one-half acre (site is 0.97 acres); that the property be either under common ownership or the subject of a single application by all owners; that the project affirmatively promotes objectives and policies of the City's Comprehensive Plan; that the project provide adequate off-street parking and open space usable by project occupants and, where appropriate, by the public; that the density allowed not be equivalent to a zoning reclassification; and that no exemptions from height limits be authorized other than those allowed in the Planning Code.

The conditional use application would be the subject of a public hearing before the Planning Commission, after certification of the Final EIR.

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[1] City and County of San Francisco, Planning Code, Sections 250 and 270, 1979 Edition.

The project would require Discretionary Review by the City Planning Commission. This review of the building permit application would include, but not be limited to, an analysis of "protection and enhancement of the pedestrian environment, preservation of architecturally and historically significant buildings, preservation of housing, avoidance of industrial displacement, adequate and appropriate means of transportation to and from the project site, energy conservation, physical relationship of the proposed building to its environs, (and) effect on views from public areas on the City skyline."[1] Under its current policy of Discretionary Review of downtown high rise buildings, the City Planning Commission would review the building design and its environmental context, then adopt a resolution either approving, approving with conditions, or disapproving the project. The Conditional Use and Discretionary Review actions could occur together with one resolution covering both.

Prior to the sale of the condominium units, the project sponsor would obtain approval of an application to subdivide the property pursuant to Section 1303(c) of the Subdivision Code, Chapter XIII of Part 2 of the San Francisco Municipal Code. Such an application must be filed with the Department of Public Works, which would refer it to the Department of City Planning, the Bureau of Engineering, the Bureau of Building Inspection and the Human Rights Commission. In the case of the City Planning Commission, a public hearing to consider consistency with the Master Plan is necessary (Section 1332 of the Subdivision Code). This application may be considered by the Planning Commission at the same time as the conditional use application.

Before beginning building construction, the project sponsor would be required to obtain a site permit with addenda for grading, foundation, structural steel, fire protection, other relevant features of the building, and electrical and related permits from the Central Permit Bureau.

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[1]City Planning Commission Resolution No. 8474, 17 January 1980.

III. ENVIRONMENTAL SETTING

A. LAND USE

The project site is in a 600-I Height and Bulk District which allows a maximum building height of 600 feet with a maximum building length of 170 feet and a maximum diagonal dimension of 200 feet above a height of 150 feet.[1]

1. Zoning

The project is within the C-3-0 (Downtown Office) District (Figure 13, page 28). As described in the City Planning Code:

> "This district, playing a leading national role in finance, corporate headquarters and service industries, and serving as an employment center for the region, consists primarily of high quality office development. The intensity of building development is the greatest in the city, resulting in a notable skyline symbolizing the area's strength and vitality."[1]

The basic floor area ratio (FAR) permitted in the C-3-0 district is 14 to 1. Thus, buildings on the project site may contain a gross floor area of up to 14 times the area of the lot. In the C-3-0 district, development bonuses may be added to the FAR for incorporating certain features in the building design such as rapid transit access proximity, parking access, multiple building entrances, sidewalk widening, shortened walking distance, plazas, side setbacks, low coverage at upper floors and an observation platform.[1] The City adopted interim controls on development bonuses on 1 June 1980 restricting the approval of these bonuses to hotel and residential developments, and only by conditional use authorization.[2]

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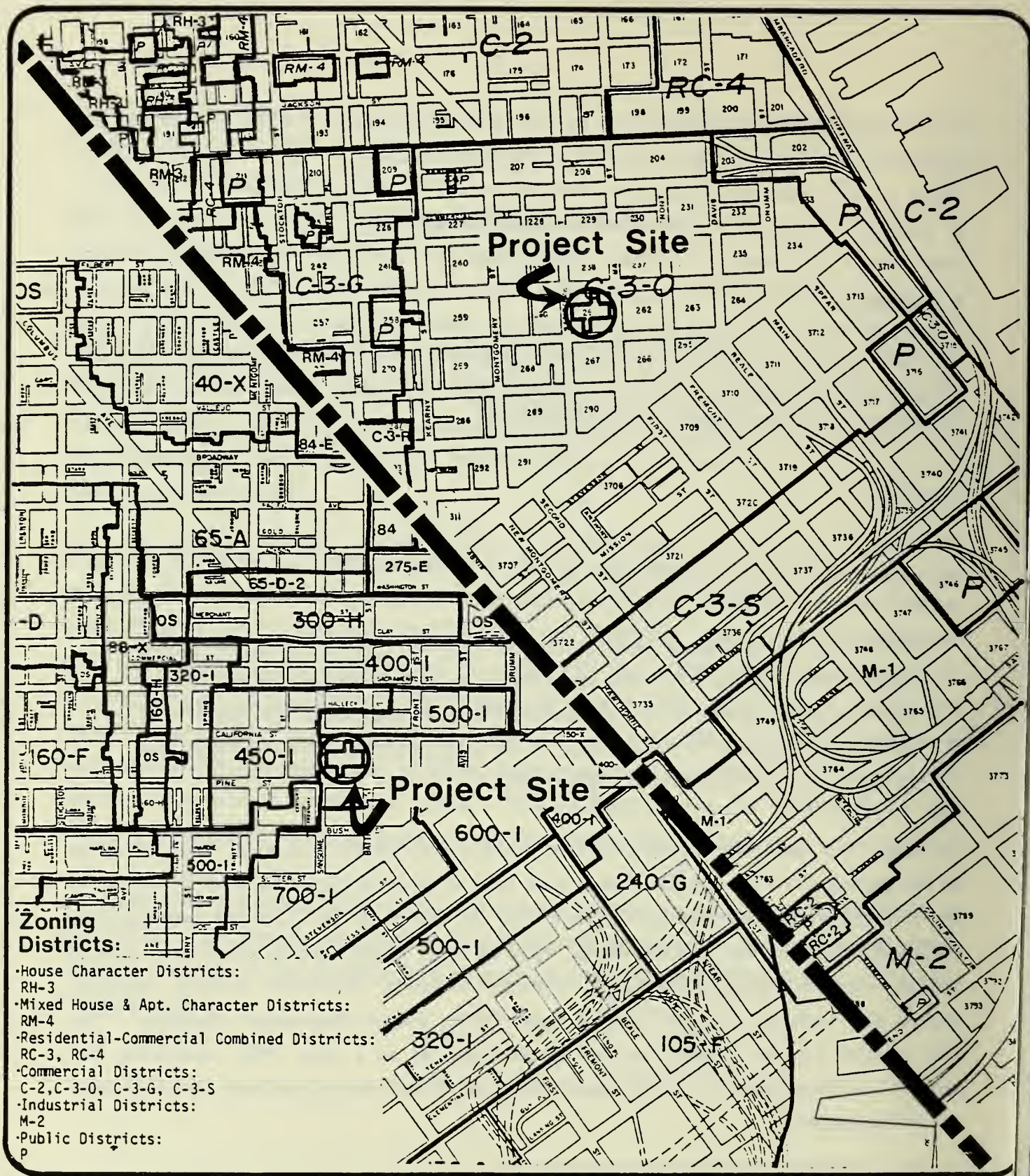
[1] City and County of San Francisco, Department of City Planning, Planning Code, Section 210.3, 1979 edition.

[2] City and County of San Francisco, Ordinance No. 240-80, 1 June 1980.



Zoning /Height and Bulk Districts

North

0 400 800 1600

Scale Feet

Figure No. 13

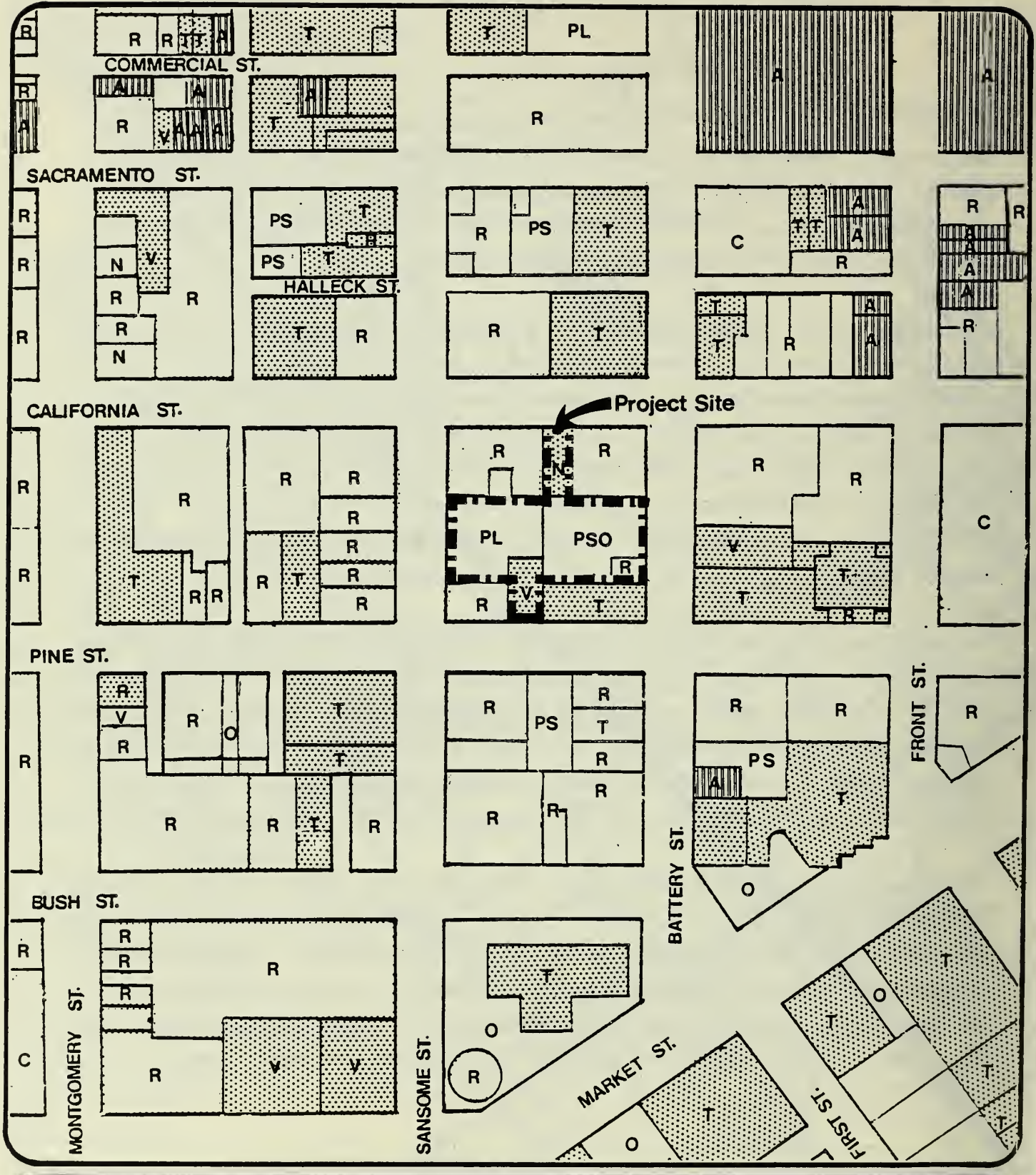
2. Land Use

The proposed project site is located in the core of the Financial District (Figure 14, page 30). The Financial District is characterized by a high density of office buildings of various ages and sizes. Upper floors of structures are used for offices, with ground floors occupied by banking and office-supported retail facilities.

The project site is currently occupied by 3 structures and a parking lot. Structures include the 10-story annex to the 311 California located at 333 California Street, the 6-story R. Stanley Dollar Building at 141 Battery Street and the 5-story Transamerica Title building at 244 Pine Street (Figure 15, page 31). Office space in these structures totals approximately 130,000 square feet. Ground floor uses include the Bank of Montreal in the 333 California Street structure, and a parking garage and coffee shop in the 141 Battery Street building. The parking lot is located on that portion of the project site facing Sansome Street.

The project site is on the middle lots of block 261 and would not encroach on any of the block's 4 corner lots. These lots are occupied by older, mid-rise office structures: the 10-story 311 California Street, the 16-story 351 California Street building, the 15-story American International building and the 8-story Liberty Mutual Insurance Company building. Uses in these structures include offices on the upper floors and primarily banking services on the ground floors. There are retail facilities in these structures.

The Financial District is under pressure for new office space and other related development. Currently under construction, within two blocks of the proposed project are the 101 California, 353 Sacramento, and 101 Montgomery buildings. In addition, the 456 Montgomery, One Sansome, 250 Montgomery, 388 Market, 122 Battery, Pine/Montgomery, 333 Bush, Central Plaza and Bank of Canton building have either been approved by the City or the applications for building are currently in the process of being reviewed.



Land Use

T Offices
R Offices w/Ground Floor Retail (I.E. Bank, Restaurant, etc.)
A Retail/Commercial

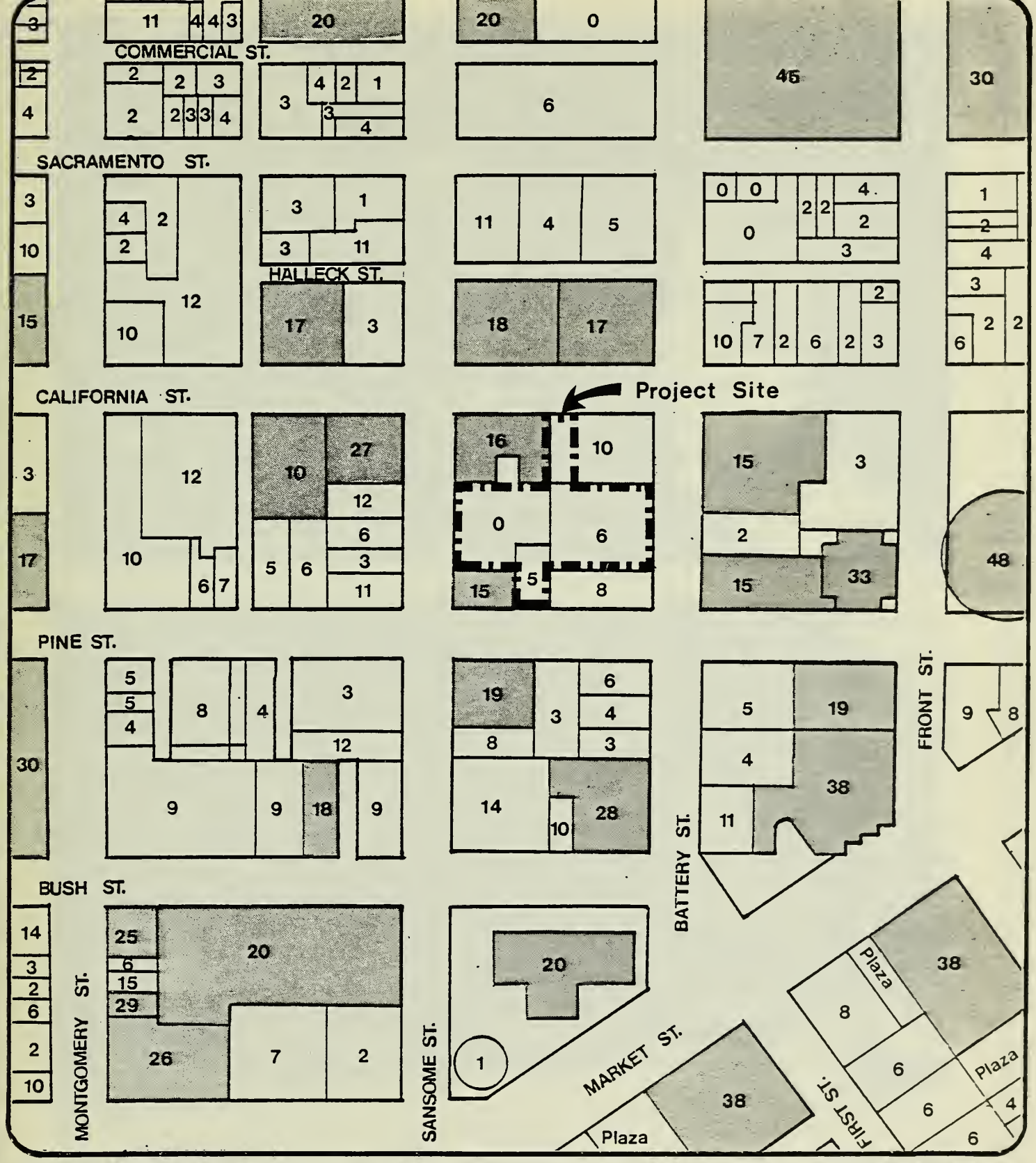
PL Parking Lot
PS Parking Structure
O Open Space or Plaza
V Vacant
PSO Parking Structure/Office
C Under Construction

Source: EIP Corp

North

0 100 200 400
Scale Feet

Figure No. 14



Building Heights in Stories

Buildings over 15 Stories in height

Site Boundary

Source: EIP Corp

North

0 100 200 400

Scale Feet

Figure No. 15

B. VISUAL QUALITY AND URBAN DESIGN

The proposed project site is located in the heart of San Francisco's Financial District. The Financial District is characterized by a variety of building types; the most prominent buildings are the 52-story Bank of America Headquarters 2 blocks west of the project site at Kearny between California and Pine Streets and the 48-story Transamerican Building 2½ blocks northwest of the site on Columbus and Montgomery Streets. There are also 1 to 8 story lowrise structures in the District. The west side of Sansome Street, for example, is lined by several older structures of varying heights and bulks including the Pacific Stock Exchange (a 3-story trading hall and a 12-story office building behind it), the Royal Globe Insurance Company (an ornate 11-story corner building built in 1907), the T.C. Kieruff building (6 stories), the Fireman's Fund Insurance Company (12 stories) and the Bank of California Building (a 3-story banking temple on the northwest corner of California and Sansome). Adjacent to these structures are the newer Great Western Savings (27 stories) and Bank of California addition (17 stories).

Collectively, buildings of the Financial District form continuous street frontages because adjacent buildings abut each other, and there are few parking lots or alleys to create open spaces. The continuous street frontages visually define the gridiron street pattern of the District to a greater degree than in other areas of downtown San Francisco (Figures 16 and 17, pages 33 and 34).

Building exteriors in the Financial District are made of a variety of materials, including brick, terra cotta,[1] stone, concrete and glass of a variety of colors. Buildings in the District constructed before 1950 generally contain more surface ornamentation than more recently constructed highrise structures. Building bases are 1 to 3 stories tall and defined by an intermediate cornice[2] on the upper floor, upon which the shaft (main part of the structure) rests. The shaft typically is terminated by a cornice defining the building's roofline. In contrast, post-1950 high rises typically contain unornamented exteriors in keeping with simpler construction techniques of steel framing and spandrels.[3]

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[1] Terra cotta: unglazed fired clay used for facing buildings, ornamentation, and roof and floor tile.

[2] Cornice: a horizontal molding projecting along the top of a building or a level of a building.

[3] Spandrel: in a multi-story building, a wall panel area between the top of a window on one level and the sill (base) of a window in the story above.

A. Aerial view of site looking northwest (actual project site in light screening)

B. Portion of project site facing California Street (333 California looking west).

Project Area Photographs

Source: EIP, Corp.

Figure No. 16

A. Portion of project site facing Battery Street (the R. Stanley Dollar Building, 141 Battery Street).

B. Portion of project site facing Pine Street (244 Pine Street looking east)

Project Area Photographs

Figure No. 17

The Financial District is observed by the pedestrian as an "urban" environment and there is a scarcity of open area or park spaces for pedestrian use. The occasional use of street trees provides visual relief to the constructed environment in some locations. Windows at the street level which allow views into building commercial spaces are the major elements that add visual interest and pedestrian scale to the sidewalk environment.

Pedestrian views are terminated to the south by buildings that face Market Street, to the west by Nob Hill and to the east by the elevated ramps of The Embarcadero Freeway. Thus, views to outlying areas from street level are largely confined to structures and architectural features of the Financial District. Regional hillsides, the Bay, the East Bay and Marin County can be viewed from upper floors of buildings within the District.

The block containing the project site contains 7 structures and a surface parking lot. Six of the structures were built in the early 1900s and have surface details consistent with design trends of the time (Figures 16, 17, and 18, pages 33, 34, and 36). The seventh structure is the 6-story Transamerica Title Building located in the middle of the block frontage facing Pine Street. Constructed in the mid-1950s, it is a plain (unornamented) structure of steel and dark grey glass. The structure at 333 California Street (see Figure 16B, page 33) was designed with a street facade that appears as a continuation of the adjacent Robert Dollar building with identical height, materials, color and ornamentation. The facades of these 2 buildings facing the interior portion of the block, however, contain differences in window placement and roofline height, which distinguish the structures .

C. HISTORICAL AND CULTURAL RESOURCES

The proposed project site is 1 block from the historic center of the Financial District in San Francisco. The vicinity of Montgomery and California Streets has been the west coast's banking and investment center since the Gold Rush era. A number of older commercial buildings in the area are reminders of the City's historical, financial and commercial importance. One example is the 1907 Bank of California Building on the northwest corner of Sansome and California Streets.

A. Portion of project site facing Pine Street (244 Pine Street looking west from the corner of Sansome and Pine).

B. Portion of project site facing Sansome Street (the parking lot, 220 Sansome)

Project Area Photographs

Source: EIP, Corp.

Figure No.18

Major buildings surrounding the project site on California, Pine, Sansome and Battery Streets include the Robert Dollar and J. Harold Dollar Buildings, the Bank of California, the Newhall Building (now the Industrial Indemnity Building), the Royal Globe Insurance Building, the California First Bank Building, the Cahill Building, the Great Western Savings Building, and the American International Building. These structures are described in Appendix B, page A-39 (see Figure A-1, page A-50 for location of these buildings).

The proposed project site is adjacent to 4 buildings that have been rated by the Foundation for San Francisco's Architectural Heritage as having architectural/historical significance: the Robert Dollar (311 California, rated B), the J. Harold Dollar (351 California, rated B), the American International (220 Sansome, rated B) and the Liberty Mutual (216 Pine, rated C) buildings, (see page A-45 for explanation of ratings.)[1]

The Robert Dollar Building was originally designed in 1910 and entirely remodeled in 1919 as the headquarters building of the Robert Dollar Steamship Lines. The J. Harold Dollar Building was originally built as the Balfour Building in 1920 and shortly thereafter became part of the Dollar building group (including the R. Stanley Dollar Building built in 1917). The American International Building adjacent to the proposed project site on the southwest corner was constructed in 1927.

There are 20 historic sites within ½ mile of the project area which have not been archaeologically surveyed.[2] No archaeological resources are known to exist on the project site.[3] The Tecumseh, a store ship, is recorded to be sunk near the corner of Battery and California Streets.[4]

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[1]None of the buildings on the block of the project site are listed in the Architectural Inventory of Significant Buildings by the Department of City Planning. There are 3 buildings in the Inventory that are in the vicinity of the proposed project and described on page A-43.

[2]Arlyn Golder, Archaeologist, Regional Office, Archaeological Regional Research Center, letter to EIP, 10 September 1981. "Historic site" can include prehistoric and usually refers to items 100 years or older.

[3]Miley Holman, Archaeologist, letter to EIP, 8 October 1981.

[4]Maritime Museum Map "Gold Rush Vessels Beached, Scuttled or Broken Up." The map is currently being prepared for publication, although a publication date has not yet been set. The map has not been revised since 1964, and ships not shown on the map have been discovered during excavation for other buildings. The Tecumseh dates from the mid-19th Century.

D. EMPLOYMENT, HOUSING, AND FISCAL CONSIDERATIONS

1. Employment

At present approximately 460 people work on the proposed project site in the 141 Battery Building, the 333 California Building, and the 244 Pine Street Building. Over 80% of the employees are engaged in administrative, clerical, or managerial occupations.[1] The balance of employees work in service categories: janitorial maintenance of the buildings; sales positions; parking attendants in the lot on Sansome Street; and parking attendants in the garage in 141 Battery which occupies the first basement level and the first and second floors.

Estimates indicate that while the average pattern for downtown office workers shows about 40% to 45% residing in San Francisco, 25% to 35% of office workers newly employed downtown over the 1980-1990 period are likely to be San Francisco residents.[2] Since the number of newly employed people is small relative to the total number of employees downtown, the average percentage of San Francisco residents working in the Financial District changes slowly over time.

Bay Area office employment now represents just over one-half of the region's total work force. Since 1970, office employment has accounted for 60% of Bay Area and San Francisco employment growth.[3] San Francisco occupies a position as one of the country's major financial and corporate headquarters centers.

Consistently low vacancy rates and rising rents in the downtown area suggest that demand for space is strong and that the construction of new office space in San Francisco has failed to keep pace with growing demand. Because of this backlog, demand for office space in the next several years will continue to reflect both the growth of office employment and the cumulative shortage of space that now exists (see Appendix H, page A-81).

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[1] Norland Properties, survey, August 1981.

[2] Based on data prepared by Recht Hausrath and Associates for 101 Montgomery Street FEIR, EE 80.26, certified 7 May 1981, Appendix C, pp. 289-299.

[3] Association of Bay Area Governments and Bay Area Council, San Francisco Bay Area Economic Profile, December 1979, pp. 37-48.

2. Housing

There are slightly over 2 million housing units in the 9-county Bay Region according to the 1980 Census. About 15% of the single-family dwellings, the most prevalent type of housing, are in San Francisco.[1] There has been, however, an increase in the percentage of multi-family housing units (including townhouses, condominiums and apartments) constructed, in San Francisco as shown in Table 3 below:

TABLE 3
BUILDING PERMITS IN SAN FRANCISCO, 1978-1981

	1978	1979	1980	1981
Single Family	227	239	190	59
Multiple Family	818	1,594	1,012	1,003
% Single Family	21.7%	13.0	15.8	5.5

Source: Jim Davis, Real Estate Research Council, telephone conversation, 20 November 1981.

The City had about 322,000 housing units as of the end of 1980. About two-thirds of the stock is rented and one-third is owner-occupied.[2] The average 1980 market value of a house was $140,000 in the Bay Area and $148,000 in San Francisco, which had the greatest increase over the past 5 years.[3] Table 4, page 40 presents rental rates and housing prices in San Francisco. The vacancy rate is low, estimated by City Planning to be between 4% and 5.6% for the total housing stock.[4]

[1] U.S. Department of Commerce, Bureau of Census, 1980 Census of Population and Housing (Advanced Reports: California (PHC80-V-6), Final Counts, March 1981.

[2] Department of City Planning, Residence: Changes in the San Francisco Housing Inventory, 1978, September 1979. Figures for 1979 and 1980 are from Department of City Planning records, Joan Carson, telephone conversation, 9 July 1981. Figures for 1981 from Department Of City Planning Rent Survey, Mike Estrada, telephone conversation 17 December, 1981.

[3] Real Estate Research Council of Northern California, Northern California Real Estate Report, Vol. 33, No. 1, April 1981.

[4] The 5.6% vacancy rate is reported by the Bureau of the Census and is currently used by the City Planning Department although Planning Director Dean Macris has requested that the Bureau revise its estimate since other indicators suggest the vacancy rate should be lower. Joan Carson, Planner, San Francisco Planning Department, telephone conversation, 29 December 1981. The methodology employed by the Bureau of the Census included all housing, (single family units, apartments, etc.) which tended to skew the rate for apartments. In addition, the inquiry techniques by the Bureau regarding occupancy could have overinflated the vacancy rate. A new Census estimate is anticipated by February 1982. Data on idle meter counts is reported by the Citizens' Housing Task Force and the results of a postal survey sponsored by the Federal Home Loan Bank Board indicate that the overall vacancy rate may lie between 1.4% and 0.8% for 1980.

TABLE 4
HOUSING PRICES IN SAN FRANCISCO, 1981

Rentals: Median Monthly Rent[1]	
Studio Apartment	$ 440
1-Bedroom	500
2-Bedroom	560
3+ Bedrooms	590
1980 Census Median Monthly Rent (median number of rooms is 4.0)[2]	310
Purchase: Average Sales Price	
New Single Family[3]	$ 155,500
Existing Single Family[4]	148,000
Condominium (New and Existing)[5]	112,760
Medium value of owner occupied dwelling (median number of rooms is 4.0)[6]	119,900

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[1] Mike Estrada, Department of City Planning, telephone conversation, 17 December 1981. Result of 1981 survey of rental advertisements in the San Francisco Examiner. Newspapers are not statistically valid sources because they are not representative of entire stocks of units, they can, however, provide a general indication of rents.

Two other sources of rental data exist but have been deemed inadequate for the present study: 1) HUD develops rental costs for the Section 8 housing subsidy program. These estimates reflect SMSA data which have been indexed forward from the 1970 census, and benchmarked with the Annual Housing Survey, which is published with at least a year time-lag; 2) the Citizens' Housing Task Force has developed hypothetical rental levels based on multi-family construction cost. However, new units represent a very small segment of the San Francisco rental market.

[2] Based on preliminary data from the 1980 census (100% sample) of $266 per unit in April 1980. Selected Housing Characteristics by States and Counties: 1980, Bureau of Census 1981. The median rent was indexed to 1982 based on the Consumer Price Index of 15.4%.

[3] New single family housing price given in: Department of City Planning Housing Element, Background Data and Need Analysis, revised September 1981, page 3, were indexed from October 1979 to October 1981 according to: Real Estate Research Council of Northern California, Real Estate Report, vol. 33, no. 1, page 8; 1981 index given by James H. Davis, Executive Director, telephone conversation, 17 December 1981.

[4] Real Estate Research Council of Northern California, op. cit., page 4.

[5] Based on average loan amount over the first 3 quarters of 1981, as reported in: California Department of Savings and Loan, "Loan Summary Analysis," line 26. Assumes a 20% down payment.

[6] Based on 1980 Census of $103,900 for median owner-occupied housing price indexed to $119,000 for 1982 based on the Consumer Price Index of 15.4%.

A description of regional and San Francisco housing characteristics is included in the Five Fremont Center Final EIR (EE.80.268, Certification Date March 12, 1981), pp.37-44. This report is available for public review at the Office of Environmental Review, 45 Hyde St., Room 319, and is hereby incorporated by reference into this EIR pursuant to Section 15149 of the California Environmental Quality Act (CEQA) guidelines. Information on the housing stock includes amount, growth factors, vacancy rates and purchase and rental costs. Both regional and San Francisco housing stock are characterized by low growth, low vacancy rates and high purchase and rental costs in relation to typical wages paid. These factors combined have tended to constrict the supply and affordability of housing in San Francisco.

3. Fiscal

The assessed value of the site for the fiscal year 1981-82 was $6,529,000. At the 1981-82 tax rate of $1.19 times 1% of full cash value, the site would generate about $77,700 in property tax revenues.[1] This is distributed to: City and County of San Francisco (79.3%, about $61,600); San Francisco Unified School and Community College Districts (14%, about $10,880); BART (6.8%, about $4,900, mostly for bond payments); and Bay Area Air Pollution Control District (0.4%, about $311).

Other revenues generated to the City from the site are parking tax revenues from the parking lot and garage, utility users tax, and business (or gross receipts) tax.[2] Real property transfer tax and sales tax for goods sold on the site may also accrue to the City. The City incurs costs to the project site in providing services to the existing buildings. Police, fire, and general government expenditures are supported primarily by the General Fund. Most street maintenance, street improvement, and traffic control costs are supported by other revenue sources such as fines, and declining federal and state aid.

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[1] Of the total tax, $65,290 represents the maximum allowable under Proposition 13 per general government expenditures ($1 times 1% full cash value), and $12,410 was levied to finance bond obligations previously approved by the general electorate ($0.19 times 1% of full cash value).

[2] The actual amount of these taxes is difficult to obtain as individual tenants pay most of the utility users and gross receipts tax and are too numerous to obtain specific information from.

E. TRANSPORTATION, CIRCULATION AND PARKING

1. Street System

The proposed project, the 333 California Office/Residential Building, is located on the block bounded by Battery, Pine, Sansome, and California Streets. Local street access would be primarily via Sansome and Battery Streets or 4 blocks away at Clay and Washington Streets. Freeway access to or from I-80 is 3/4 of a mile south at Sixth and Brannan Streets. U.S. 101 northbound can be reached by traveling 4 to 5 miles on local City streets to the Golden Gate Bridge.

The Transportation Element of the San Francisco Comprehensive Plan designates as major thoroughfares the north/south streets of Battery, Sansome, Montgomery and Kearny; and the east/west streets of Market, Washington, Clay, Pine and Bush.[1] The portions of these major thoroughfares fronting on the project site are not designated as primary-vehicle streets in the Downtown Transportation Plan of the Transportation Element. No streets in the project area are designated as secondary thoroughfares.

The Transportation Element also designates Sansome, Battery, California, a portion of Pine Street, Market, Montgomery, and Kearny Streets as "Transit Preferential Streets." By definition, priority is given to transit vehicles over automobiles on these streets.

2. Transit

Local public transit routes are provided by the San Francisco Municipal Railway (MUNI) and regional service is available via Bay Area Rapid Transit (BART), AC Transit (AC), Golden Gate Transit (GGT), San Mateo County Transit (SamTrans), Greyhound, and Southern Pacific (SP). Existing transit lines near the project site are shown in Figure 19, page 43.

3. Parking

The public off-street parking supply in the Financial District recently has been surveyed several times as part of the EIR process for new construction in this area. The parking occupancy load in the Financial District is approaching 90% of the available space in the

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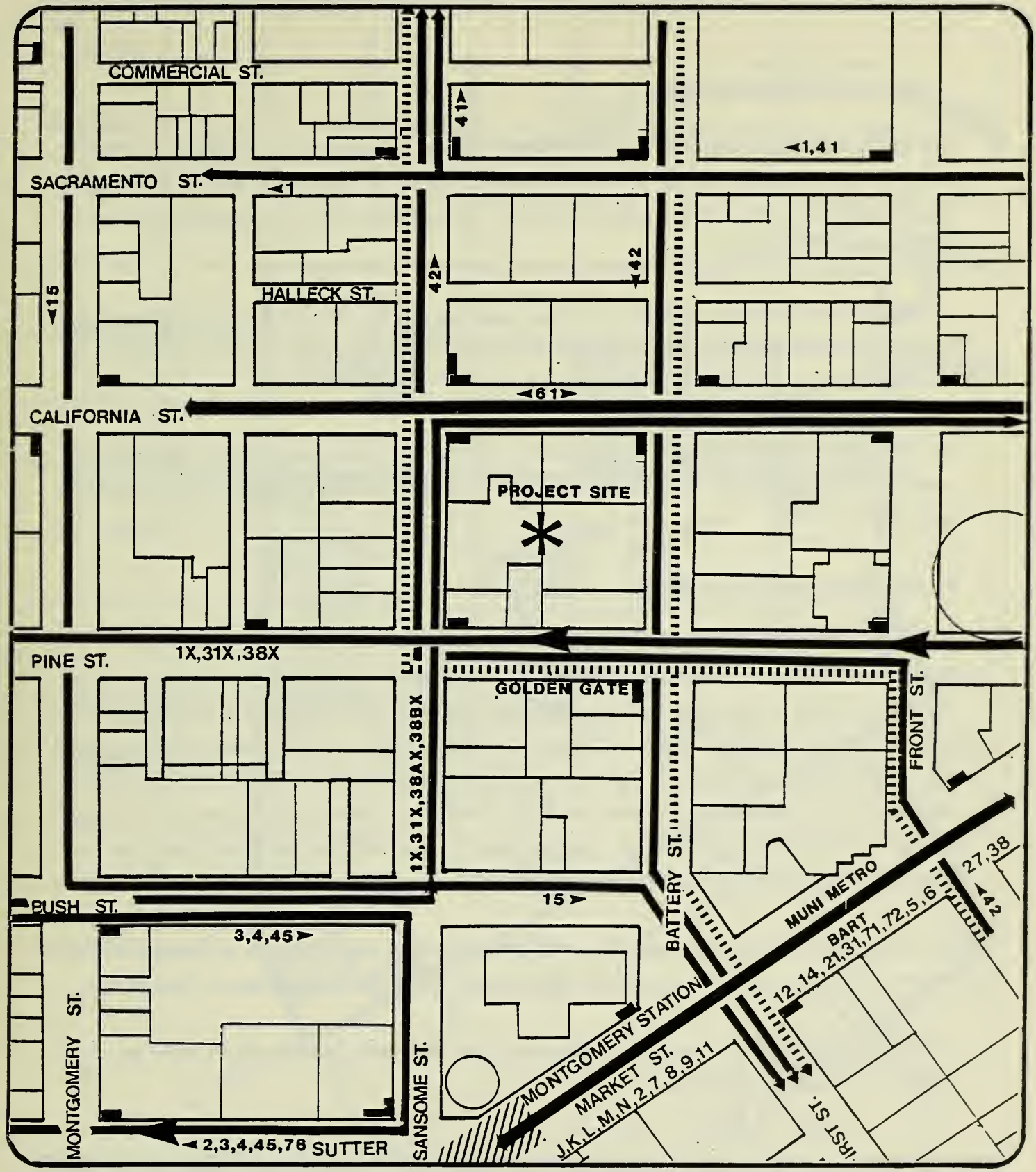
[1] Major thoroughfare is defined as "a cross-town street whose primary function is to link districts within the City and to distribute traffic from and to the freeways; a route generally of city-wide significance; as identified in Thoroughfare Plans of the Transportation Element of the San Francisco Comprehenvise Plan.



Existing Transit Lines

Golden Gate Transit Route

MUNI Route

15 Bus Stops in Project Area

Source: DKS Assoc., Muni Transit Routes (June 1982)
Muni Route Changes (January 1982)

North

0 100 200 400

Scale Feet

Figure No. 19

off-street lots in the district.[1] This 90%-load factor is essentially the physical capacity of off-street lots since not all spaces can be occupied all day and some will be temporarily vacant while cars move in and out of each lot. All parking within the Financial District is thus currently fully used.

There are about 8,000 to 10,000[2] off-street parking spaces within a 3- to 4-block walking distance of 333 California Street (Figure 20, page 45). These spaces are fully used and are not available for new auto drivers to the area.

On the project site there is 1 garage and 1 parking lot which have spaces for about 300 cars (Figure 21, page 46. At 90% occupancy, this is equivalent to a peak load of about 270 cars parked on site.

4. Pedestrian and Bicycle Access

a. Pedestrian Conditions

Battery and Sansome Streets are heavily used by pedestrians during commute hours. Up to 28 people per minute use the Sansome east sidewalk, which implies a pedestrian flow regime of "impeded" (see Table 19, page 92, for definitions of pedestrian flow regimes). The west sidewalk of Sansome Street is more heavily used by pedestrians than the east sidewalk (which fronts the proposed project). The west sidewalk carries about 50% more pedestrians than the east sidewalk, possibly due to more building entrances than the east side (this sidewalk is in the "impeded" pedestrian flow regime.).

Up to 40 people per minute cross the mid-block portion of east sidewalk of Battery during the evening peak hour. The pedestrian flow regime under these conditions is "impeded."

California Street is less used by pedestrians than Sansome Street and experiences few pedestrian crowding problems.

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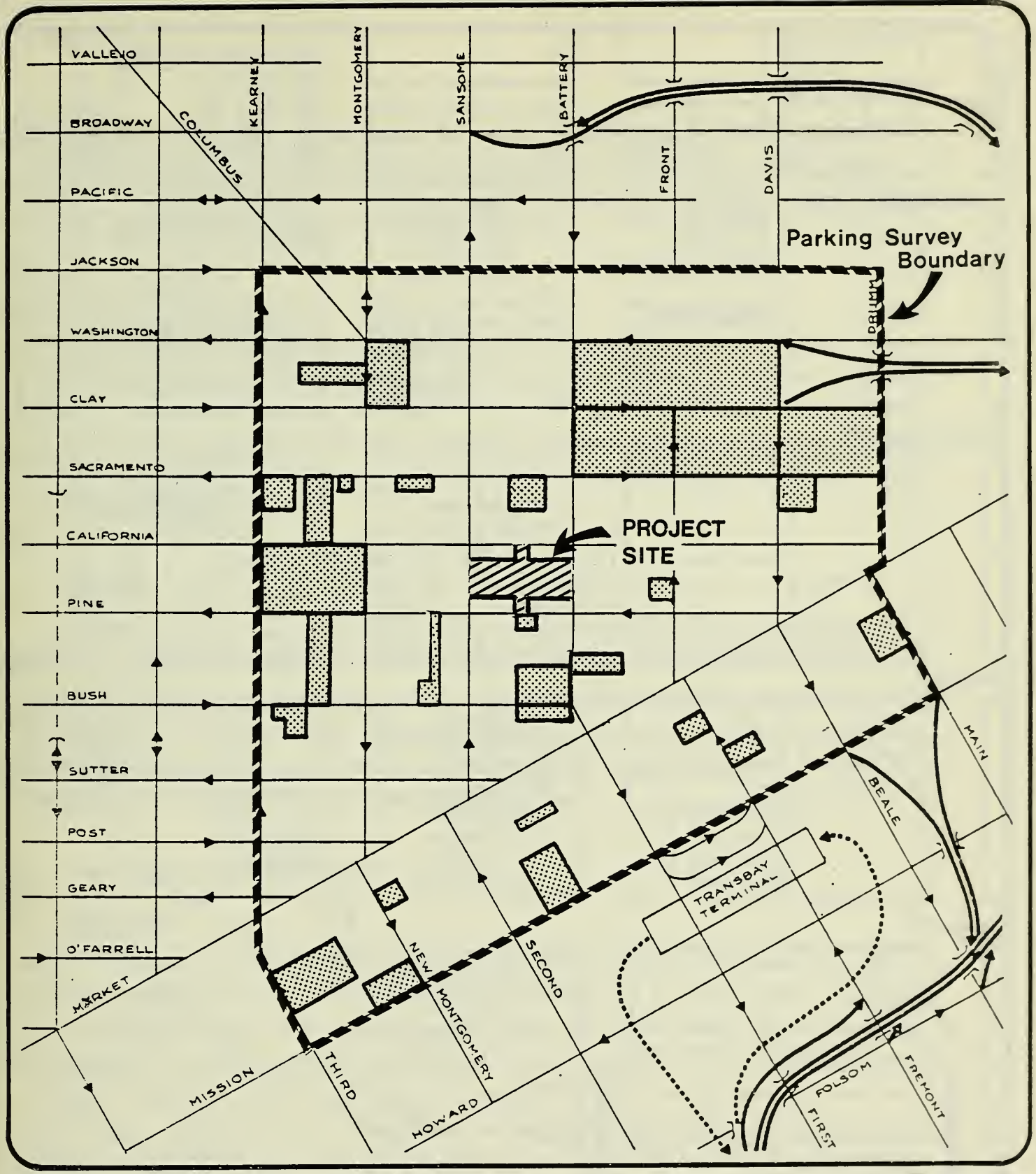
[1] San Francisco Department of City Planning, 101 California Street Final EIR, EE 78.27, certified 9 August 1979, page 43, and Final EIR 101 Montgomery Street, EE80.26, certified 7 May 1981, page 47.

[2] San Francisco Department of City Planning, One Sansome Building Final EIR, EE 78.334, certified 6 August 1981, page 48.



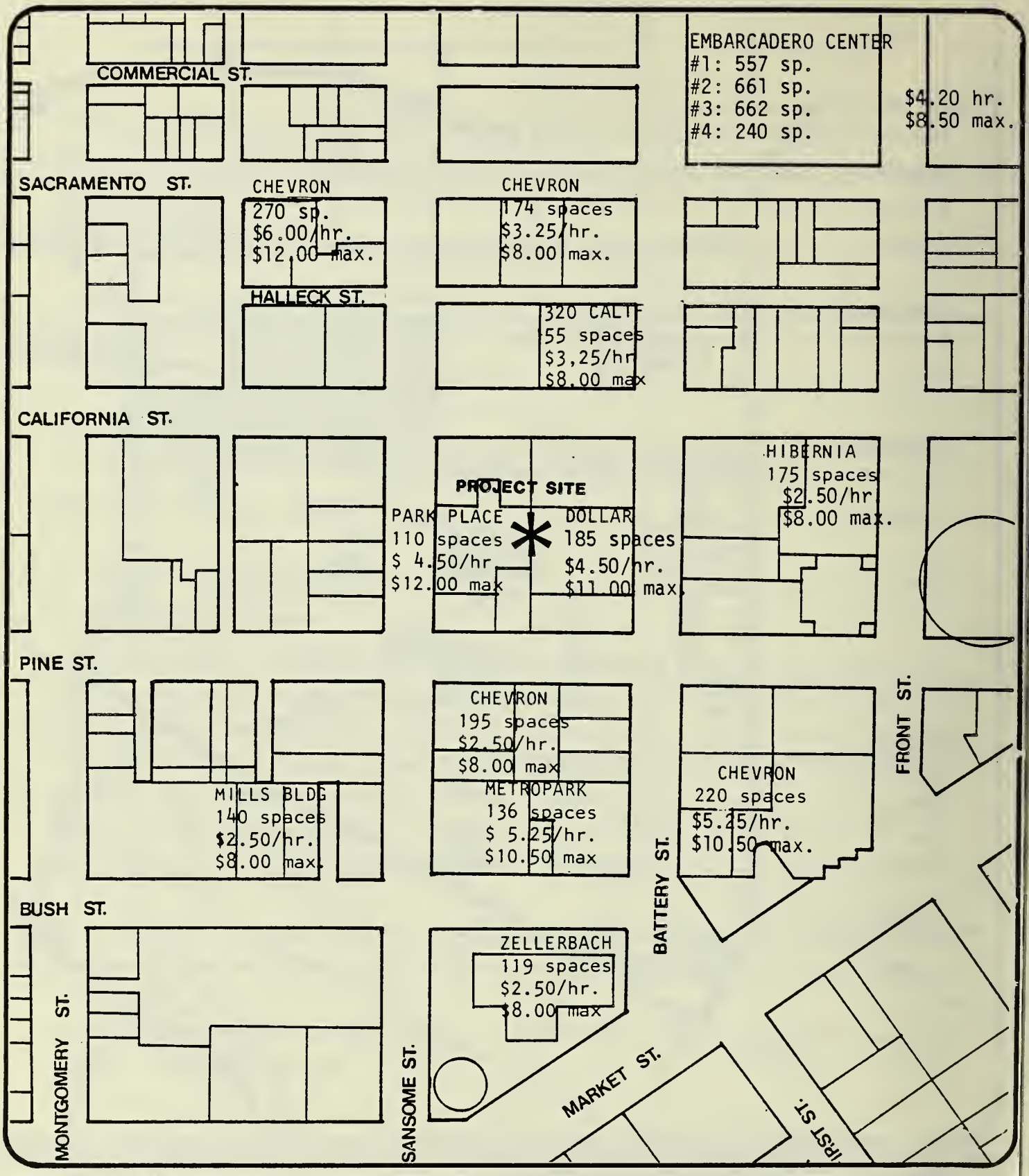
Public Off-Street Parking in Project Vicinity

North
No Scale

Off-Street Commercial Parking

Figure No. 20

Source: DKS Associates



Public Off Street Parking

North

0 100 200 400

Scale Feet

Source: DKS FIELD SURVEY
21 September 1981

Figure No. 21

Transient problems arise when people bunch up at the Sansome/California, Battery California, Battery/Pine, Sansome/Pine intersections waiting for the traffic signal to change to green. Pedestrian movements crossing Pine, Sansome, California and Battery Streets then become congested.

b. Bicycle System

There are no bicycle routes in the project area that are marked with strips and/or signs. Sansome and Battery Streets are both proposed by the City for bicycle routes as is Market Street. Streets that may be designated by the City as bicycle commute routes are Market, Geary, O'Farrell, Third, New Montgomery, Second, Howard, and Folsom. These special routes would have no signing or marking but may be designated as commute routes on maps available to cyclists.

F. NOISE

The ambient noise of the project vicinity is typical of the downtown area in San Francisco which is primarily determined by vehicular traffic. The major contributors to the level of noise in the area are automobiles, buses, trucks, emergency vehicles and construction equipment. The Environmental Protection Element of the San Francisco Master Plan indicates a day-night average noise level (Ldn) of 70 dBA on the four streets surrounding the project: California, Pine, Sansome, and Kearny.[1]

G. AIR QUALITY AND CLIMATE

1. Air Quality

San Francisco's persistent summer winds and its upwind position with respect to major pollutant sources continue to give it possibly the cleanest air in the Bay Area. Despite these advantages, there are periods, usually in fall and winter, when the air becomes stagnant. At these times the entire Bay Area has poor air quality. It is a non-attainment area for ozone and carbon monoxide, and San Francisco is a non-attainment area for particulates. In 1980 only the standard for suspended particulates was exceeded in San Francisco; while the other 5 measured pollutants were below the standards (see Table A-9 in Appendix G, page 78).[2]

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[1]Department of City Planning, Environmental Protection Element of the Comprehensive (Master) Plan, September 1974, page 17. A complete discussion of acoustical concepts is found in Appendix F pages A-69 -72.

[2]Bay Area Air Quality Management District, Air Currents, Vol. 24, No. 3, March 1981.

Because the air quality standards are not met in all areas of the Bay Area, the Air Quality Plan for the Bay Area, as part of the Environmental Management Plan (EMP), has been prepared by the Association of Bay Area Governments (ABAG) and other governmental agencies.[1]

This Plan contains a strategy for the long-term attainment and maintenance of the air quality standards. It includes measures to reduce emissions from stationary sources and automobiles and suggests transportation measures to reduce automobile emissions. The air quality problems addressed in the Air Quality Plan are photochemical oxidants, carbon monoxide, and suspended particulates.

2. Climate

The climate of San Francisco is dominated by the sea breezes characteristic of marine climates and there are few extremes of heat and cold. The warmest month is September, with an average daily maximum of 69 degrees; the coolest is January, with an average daily maximum of 56 degrees.

Winds in San Francisco are generally from a westerly direction and are persistent from May to August. The project site would be exposed to northwesterly winds, the most prevalent direction.

H. ENERGY

PG&E, which serves the project site, obtains a portion of its electrical energy from renewable resources, including geothermal and hydroelectric power. It plans to meet new energy demands from Northern California customers primarily by increasing the use of coal, oil, natural gas and nuclear power.[2]

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[1] Association of Bay Area Governments, 1979 Bay Area Air Quality Plan, Berkeley, California, January 1979.

[2] Pacific Gas and Electric Company, Annual Report to Stockholders, San Francisco, California, 1980.

I. DOWNTOWN FIRE PROTECTION SERVICES [1]

In recent years, the San Francisco Fire Department has experienced reduction in personnel due to budgetary cutbacks. Daily staffing has decreased by nearly 100 persons in the last six years, from about 410 in 1975 to 315 present. There are fewer companies and on the average, fewer firefighters per company.

Although it would appear that this reduction in staffing would result in more fires and an increase in multiple alarm fires, Fire Department statistical records indicate otherwise.

While there is a greater number of emergency calls today than there were ten years ago (39,199 in 1980 as compared to 30,727 in 1970) there were 26% fewer building fires in the same period. In addition, greater alarms have been reduced by 35% in the same time period (See Tables 5 and 6, page 50).

Fire Department statistics by Fire District within the City are only available for 1977 to 1980 which is not a sufficient period of time within which to reliably discern trends. There is no indication in this data of any difference in trend in the downtown area compared to the rest of the City.

New high-rise structures in San Francisco have been required to conform with the Life Safety provisions of the San Francisco Building Code since 1975. These buildings must be provided with automatic fire sprinklers throughout, as well as with a fire alarm system, emergency power, and special elevator controls. Although the probability of a fire occurring in a new high-rise building is about the same as that for any pre-1975 building of similar size and occupancy, the chance of the fire spreading is reduced by the automatic operation of the fire sprinkler(s). In the majority of fires involving fully sprinklered buildings, a single sprinkler is adequate to control the fire because the sprinkler extinguishes flames before they spread.

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[1] Information contained in this section is from Bendix Environmental Research, Inc., Environmental Consultants and Fire Protection Engineers, confirmed by Emmet D. Condon, Deputy Chief, San Francisco Fire Department, September 24, 1981.

The Fire Department attributes this decrease in building fires and multiple-alarm fires to increased fire prevention inspections by fire suppression units, improved abatement procedures for code violations by the Fire and Building Departments, greater focus on public safety educational programs, and the continuing replacement of older, more hazardous structures with modern construction that conforms to the life safety provisions of the building code.

Approximately 450 high-rise buildings in San Francisco have been affected by retroactive state high-rise regulations which have resulted in upgrading of their fire safety for the occupants as well as for the firefighters who must enter the buildings under emergency conditions.

TABLE 5
SAN FRANCISCO FIRE INCIDENCE, 1970-1981

	Building Fires	Multiple-Alarms	Total Alarms
1980-81	2,816	90	39,199
1975-76	3,793	146	34,416
1970-71	3,830	139	30,727

SOURCE: San Francisco Fire Department

TABLE 6
SAN FRANCISCO FIRE INCIDENCE, 1960-1981

Fiscal Year	1980-81	1979-80	1975-76	1970-71	1965-66	1960-61
Total Alarms	39,199	39,496	34,416	30,727	21,448	14,870
Total Building Fires	2,816	2,898	3,793	3,830	3,476	3,364
Multiple Alarm Building Fires:						
Second Alarms	59	65	107	90	107	64
Third Alarms	19	19	29	39	32	27
Fourth Alarms	7	7	6	9	7	6
Fifth Alarms	5	2	4	1	3	1
Total Multiple Alarms	90	93	146	139	149	98
Fire Deaths	28	12	47	37	28	47

Source: San Francisco Fire Department Annual Reports.

IV. ENVIRONMENTAL IMPACTS

A. ISSUES NOT ADDRESSED

An Initial Study (see Appendix A, page A-1) was prepared for the proposed 333 California Building to identify potential environmental issues resulting from the project.

Potential environmental issues of the proposed project that have been determined to be insignificant, and therefore will not be addressed in this EIR for the project, are:

Transportation/Circulation: No new public roads would be constructed.

Air Quality: The proposed project would create no objectionable odors. The building would be heated by electricity and natural gas. The project, per se, would not affect the quality of air in the City or region; however, it may contribute to a cumulative impact on air quality from vehicular traffic.

Noise: After project completion, audible noise levels in the project vicinity would not increase due to compliance of the mechanical system with the City Noise Ordinance.

Public Services and Utilities: The increased demand for public services and utilities generated by the proposed project is not expected to require additional personnel or equipment. The cumulative impacts of the proposed project and other downtown office high rise buildings, however, may have significant impacts on some services, such as MUNI.

Topography/Soils/Geology: The proposed project is not expected to have an effect on the site's topography, soils, or geology.

Biology: The proposed project would not have an effect on plant or animal life on the development site or surrounding sites.

Hazards: The proposed project would not be affected by hazardous uses or health hazards in the area nor would it have a potential for health hazards.

B. LAND USE

The proposed project would be a mixed use development containing condominium units, office space, retail/commercial space and parking totalling approximately 865,250 gross

square feet. Existing uses on the site would be removed prior to construction of the proposed project. Existing uses on the corner lots of Block 261 would not be affected by the proposed project. Office space, totalling 598,450 gross square feet, would be the major use in the project. This represents a 450% increase of office space currently available on the project site. Parking for 139 cars would be provided in a below-grade parking garage. (See IV. Transportation, Circulation, and Parking, page 78, for impacts due to reduction of on-site parking.) There would be 18,500 square feet of retail space for shops and restaurants on the ground and second floor levels. Both the parking garage and retail facilities could be used by office workers and residents of the condominium units.

The proposed project would conform to the existing zoning regulations; however, exceptions of 57 feet 4 inches to the length, 27 feet 4 inches to the maximum diagonal dimension are sought (see Section II.D., Required Approvals, page 23). The proposed project would be 227 feet 4 inches in length and 227 feet and 4 inches at the maximum diagonal dimension.

Several objectives and policies in the Commerce and Industry Element of the San Francisco Comprehensive Plan concerning office development, employment and cumulative impacts are relevant to the proposed project.[1]

> Specific Objective 6: "Maintain and improve San Francisco's position as a prime location for financial, administrative corporate and professional activity."
>
> Policy 1: "Encourage continued growth of prime downtown office activities so long as undesirable consequences of such growth can be avoided."

The proposed project would be responsive to a policy for continued office development. However, as noted in the Element such growth

> "while supporting the economic vitality of the City, has not been without its environmental and aesthetic costs. . .assuming these costs are controlled within publicly acceptable limits, the City should encourage continued office growth. It should be made clear to existing and future firms wishing to locate downtown that concern over issues of public cost and environmental impact is not merely

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[1] San Francisco Department of City Planning, Commerce and Industry Element Policies and Objectives, adopted by the City Planning Commission, Resolution 8001, 29 June 1978, pages 31, 33 and 34.

opposition to further development but a recognition that there are practical limits to that growth which would benefit residents and businesses alike."

Policy 2: "Guide location of office development to maintain a compact downtown core so as to minimize displacement of other viable uses."

The project includes provision of 55 condominium units totalling 110,450 square feet.[1] These units would be located in the upper 11 stories of the project towers. The project would respond to Objective 1, Policy 3 of the proposed revision of the Residence Element of the Comprehensive Plan to "promote the inclusion of housing in Downtown commercial developments".[2] In addition, the rehabilitation of 238 low and moderate income units as part of the proposed project would comply with Objective 4, Policy 2 to "maintain and improve the existing supply of public housing"[3] and Objective 9 Policy 2 to "encourage rehabilitation and development of housing in he Bay Area."[4]

The proposed project represents one of 3 proposed developments providing residential units in a Financial District highrise office building. Some retail uses are nearby, although they are primarily office-oriented and do not provide everyday shopping needs (e.g., grocery stores). Support facilities are available in the Golden Gateway development 4 blocks north of the project site.

The project would increase the density of uses on the site. Secondary impacts resulting from increased density of land use would include changes in the pedestrian and vehicular traffic patterns, and growth and economics and housing demands of the area. These secondary impacts are addressed in other sections of this EIR.

The proposed project is one of 38 projects proposed, approved and/or under construction in the Financial District (north of Market Street in the C-3-0 District) planned for office and residential uses (see Appendix D, page A-50). The project is part of a trend towards increased density of office and office/residential land use in the downtown area.

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[1] Included in this square footage are the special private elevators and residential lobbies. Actual floor space per unit may average about 1,400 square feet per unit.

[2] Department of City Planning, proposed revision of the Residence Element of the Comprehensive Plan, January 1982, page 2.2

[3] Ibid, page 2.10.

[4] Ibid, page 2.23.

C. VISUAL QUALITY AND URBAN DESIGN

The proposed project would be a single structure comprised of 3 individual parts. The 4-story base of the building (see II, Project Description, page 9) would be rectangular and extend east to west between Sansome and Battery Streets (Figure 10, page 20). The 333 California Building would be removed to provide pedestrian access to the building from California Street at mid-block. The east and west faces of the base portion of the building would be set back from the sidewalk in the shape of a "V" (Figure 7, page 16) to provide the pedestrian with a sense of entry to the structure. The hexagonal tower would be set back on all sides from the edge of the base.

A horizontal element at the fourth floor level would connect each side of the vertical portions of the entryways, visually framing the entries when viewed from Sansome and Battery Streets. A lower horizontal member at the second level would be provided to generally align with the intermediate cornices of adjacent structures to visually maintain the building bases along the street frontages (Figures 6 and 7, pages 15 and 16) with the exception of the main entrance on California Street where the project would be set back from the street. Both horizontal elements would contribute to the definition of street space and scale.

The north and south facades of the tower would step inward at the 37th-39th floors, providing a tapered appearance. The perceived building mass would be further reduced by dividing the upper 11 floors, devoted to residential use, into 2 separate towers connected by walkways on each floor (Figure 7, page 16), which would also provide more natural light to the residential units.

Above the 4-floor rectangular base, the tower structure portion of the building would be hexagonal and the exterior would be constructed with stone material. Because the building sides would be constructed at different angles, there would be contrasts in the appearance between the various building faces throughout the day, which would tend to break up the total mass of the building and reduce apparent bulk. At night, interior lighting would allow the viewer to see clearly into the building.

Several policies contained in the Urban Design Plan of the San Francisco Master Plan relate to the project area and the proposed building.[1]

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[1] San Francisco Department of City Planning, Urban Design Plan, adopted by Resolution 6745 of the San Francisco City Planning Commission, 26 August 1971.

Major New Development Policy #6 -- "Relate the bulk of buildings to the prevailing scale of development to avoid an overwhelming or dominating appearance in new construction."[1]

The bulk of the proposed structure would relate to the bulk of other structures in the Financial District in varying ways. The 4 floor rectangular base would fit in with the mass and form of buildings being retained on the site as seen in street level views. The slender twin towers would compare favorably with some of the slender residential towers on nearby hills and more distant cityscape views. The midsection is similar in mass to nearby office buildings such as the J. Harold Dollar Building at the corner of California and Sansome Streets (Figure 6, page 15). The part of the building that terminates in the slender twin towers could be perceived as being more slender overall than the same sized building without slender upper portions. Building forms that diminish in size via terracing and the creation of smaller elements fit into the cityscape of San Francisco.

The twin towers would give the building a recognizable top which could be identifiable from other buildings in the area. The building's bulk would relate to the bulk of other post-1950 highrise construction within the approximate 36-square block area of the Financial District, adding to prevailing skyline of the District.

City Pattern Policy #1 -- "Recognize and protect major views in the city, with particular attention to those of open space and water."[2]

The proposed building would obstruct views outward from the upper floors of adjacent buildings. The degree of view blockage would vary, depending on observer location in relation to the proposed structure and observer elevation. Because the structure would rise above the adjacent buildings on the project block, upper floors would provide a variety of views to the Financial District and other parts of San Francisco, the Bay and hillsides of the East Bay and Marin County.

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[1] Urban Design Plan, page 37.

[2] Urban Design Plan, page 10.

The 4-story base would obstruct views from the lower floors of adjacent structures on the project block. The affected buildings would be a portion of the north face of the American International Building at the corner of Sansome and Pine Streets, and a portion of the south face of the J. Harold Dollar Building.

Buildings opposite the project block would also have views obstructed to varying degree. For example, upper floors of the south-facing wall of the California First Bank Building at the corner of California and Sansome Streets would have views obstructed over a horizontal range of about 30 degrees (Figure 4, page 13). The same would generally be true for the Great Western Savings Building located at the southwest corner of the intersection, although the angle of the affected view would be less, about 20 degrees. Views north from the 19-story tower located at the southeast corner of the intersection of Pine and Sansome Streets would be obstructed over about a 30-degree angle, and the 255 California building at Battery and California Streets would have views obstructed to the west over an angle of about 20 degrees. In all cases, views obstructed by the proposed project would be those views that are not currently obstructed by existing buildings on the project site, i.e. by buildings that currently range from 8 to 16 stories in height (Figure 15, page 31).

Conservation Policy #6 -- "Respect the character of older development nearby in the design of new buildings."[1]

There is a mix of architectural styles, colors and construction materials in the project area. The light-colored stone and glass of the exterior surfaces of the base would blend (not contrast) with the predominant colors in the area which are light tan to beige, and grey. Retention of the corner buildings on the block would provide the transition to surrounding development by masking the proposed project in the core of the block. The new street frontages inserted between the corner buildings maintain major lines through the device of the entry gates that permit a view of the tower base yet symbolically keep a traditional approach to the street frontage.

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[1] Urban Design Plan, pages 25, 36, and 57.

Major New Development Policy #2 -- "Avoid extreme contrasts in color, shape and other characteristics which will cause new buildings to stand out in excess of their public importance."[1]

The polygonal form is articulated to reveal rectangular forms of sub-elements. The polygonal form is thus comprised of two square vertical shafts of 45° to the street grid joined by a larger rectangular mass parallel to the street grid.

Other polygonal buildings in the city include the 525 Market Street building and the Bank of America Center at Eleventh and Market Streets. The stepped back tower in mid-block would help the proposed project building blend with other high rises in the downtown area. The twin towers would give the building a recognizable top. Although there are no structures of similar hue in the area, the greenish glass would be of a light tint and the building would not be expected to contrast with the color of other structures in the area.

Policy for Neighborhood Environment #13 -- "Improve pedestrian areas by providing human scale and interest."[1]

An existing parking lot and garage, which do not provide pedestrian interest, would be removed.

The horizontal elements of the entrance gates would help define street scale and provide visual interest to the pedestrian.

At ground level, retail floor space would be provided adjacent to building entries on the interior portion of the block (Figure 8, page 17). Storefront windows allowing visual access to interior building spaces would provide visual interest to pedestrians. A second-floor roof garden over the truck loading access extending to the project from Pine Street would be adjacent to the residential lobby (Figure 9, page 18).

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[1] Urban Design Plan, pages 25, 36, and 57.

Removal of the 333 California Street building would expose 2 walls of adjacent structures, 10 and 16 stories high. Removing the building would allow pedestrian access from California Street to an arcade along the ground floor retail portion of the project. Design details of the proposed arcade have not been prepared yet. The architectural treatment and associated costs of the exposed building walls leading to the arcade have not been determined.

City Pattern Policy #3 — "Recognize that buildings, when seen together, produce a total effect that characterizes the city and its district."[1]

Major New Development Policy #9 — "Encourage a continuing awareness of the long-term effects of growth upon the physical form of the city."[1]

The proposed structure would be related to City Pattern Policy #3 and Major New Development Policy #9 in terms of cumulative impacts. The building would be seen from vantage points throughout the project area, including the elevated ramps of Interstate 80 and The Embarcadero Freeway, as a component of the San Francisco skyline.

The structure would be seen as a new element in the City's emerging urban form of taller buildings over an increasing land area, which includes the Financial District and South-of-Market area. The top of the building would be more complex in an area that is composed of box-shaped buildings. The city is encouraging more complex tops to buildings to relieve the blunting of box-top towers viewed together in the skyline profile.[2] The slender vertical quality of the proposed project would contribute to a more graceful skyline (Figures 22, 23, 24, 25, 26, and 27, pages 59, 60, 61, 62, 63 and 64).

Current trends suggest that future development of land adjacent to or near the project site would consist of buildings taller than the older structures they would replace. New structures would appear to continue and reinforce the existing high rise development pattern of the project area, primarily as infill. Accordingly, the proposed structure may be visually absorbed, in varying degrees through time, into the skyline profile of the Financial District.

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[1] Urban Design Plan, pages 10 and 40.

[2] Dick Hedman, Department of City Planning, conversation, 27 January 1982.

Aerial View of Proposed Project looking northeast from 800 foot elevation

•Proposed Projects

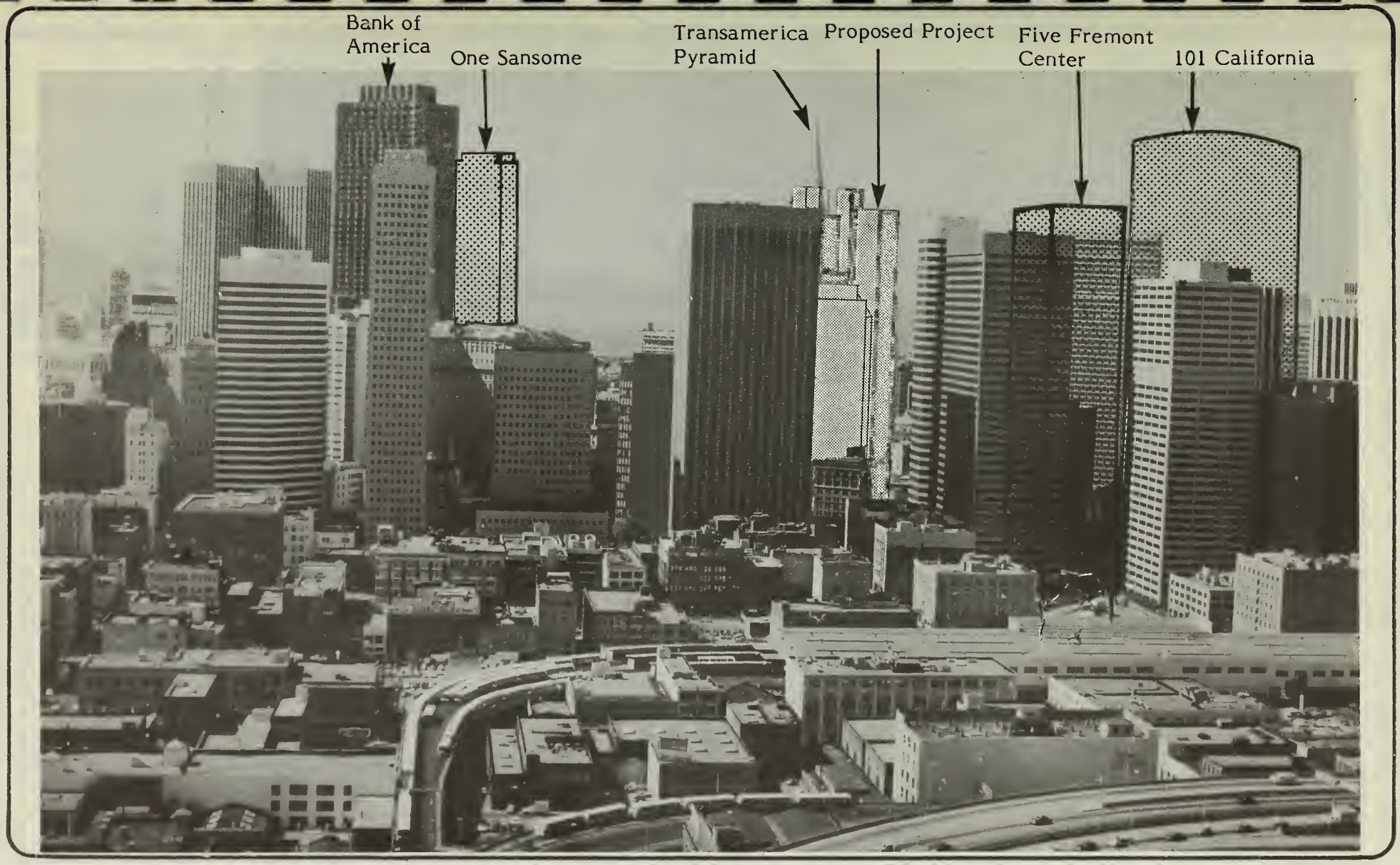
SOURCE: Skidmore, Owings & Merrill/EIP

Figure No. 22

Aerial View of Proposed Project looking northeast from 600 foot elevation

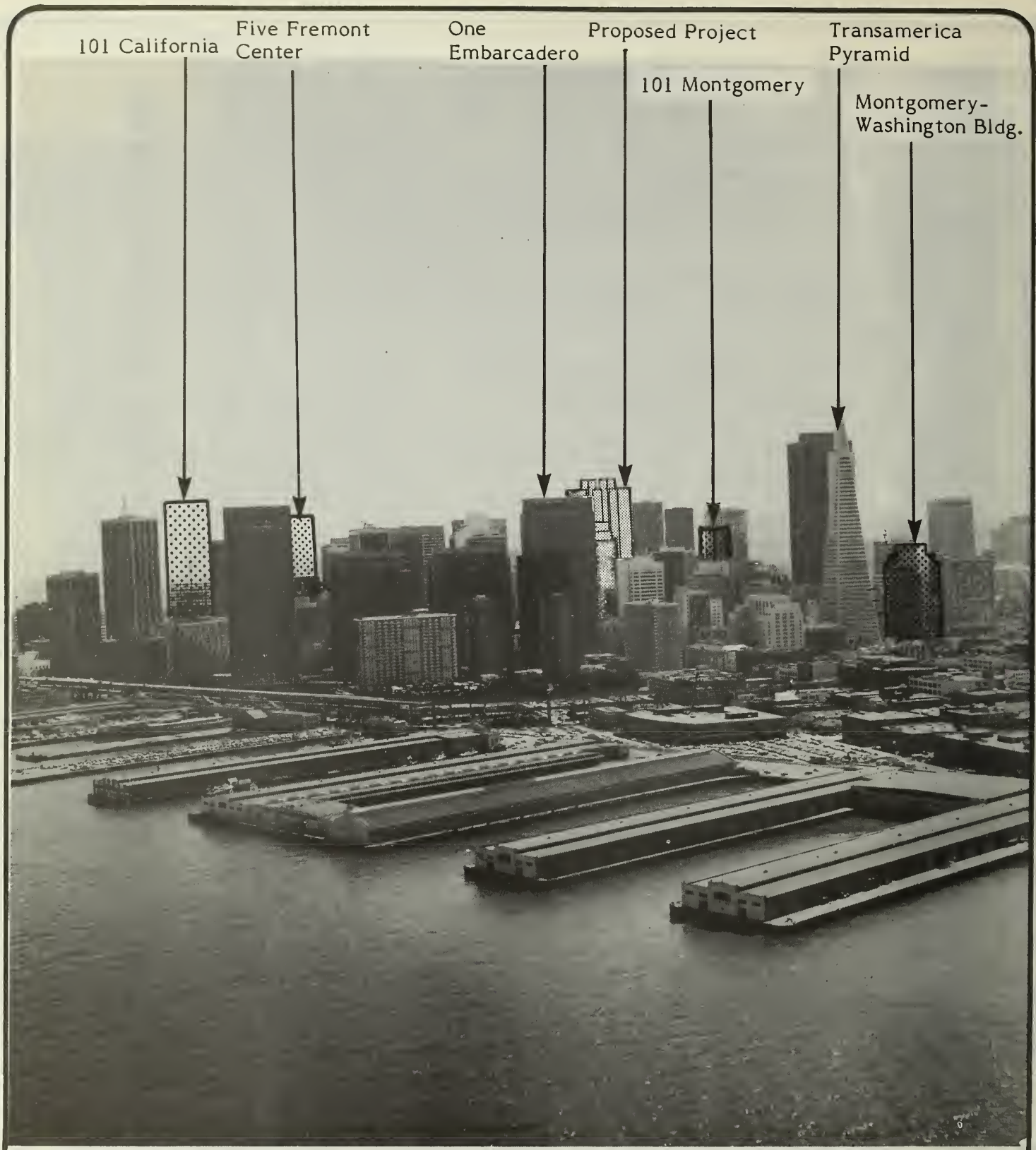
Figure No. 23

SOURCE: Skidmore, Owings & Merrill/EIP



Aerial View of Proposed Project looking north from 300 foot elevation

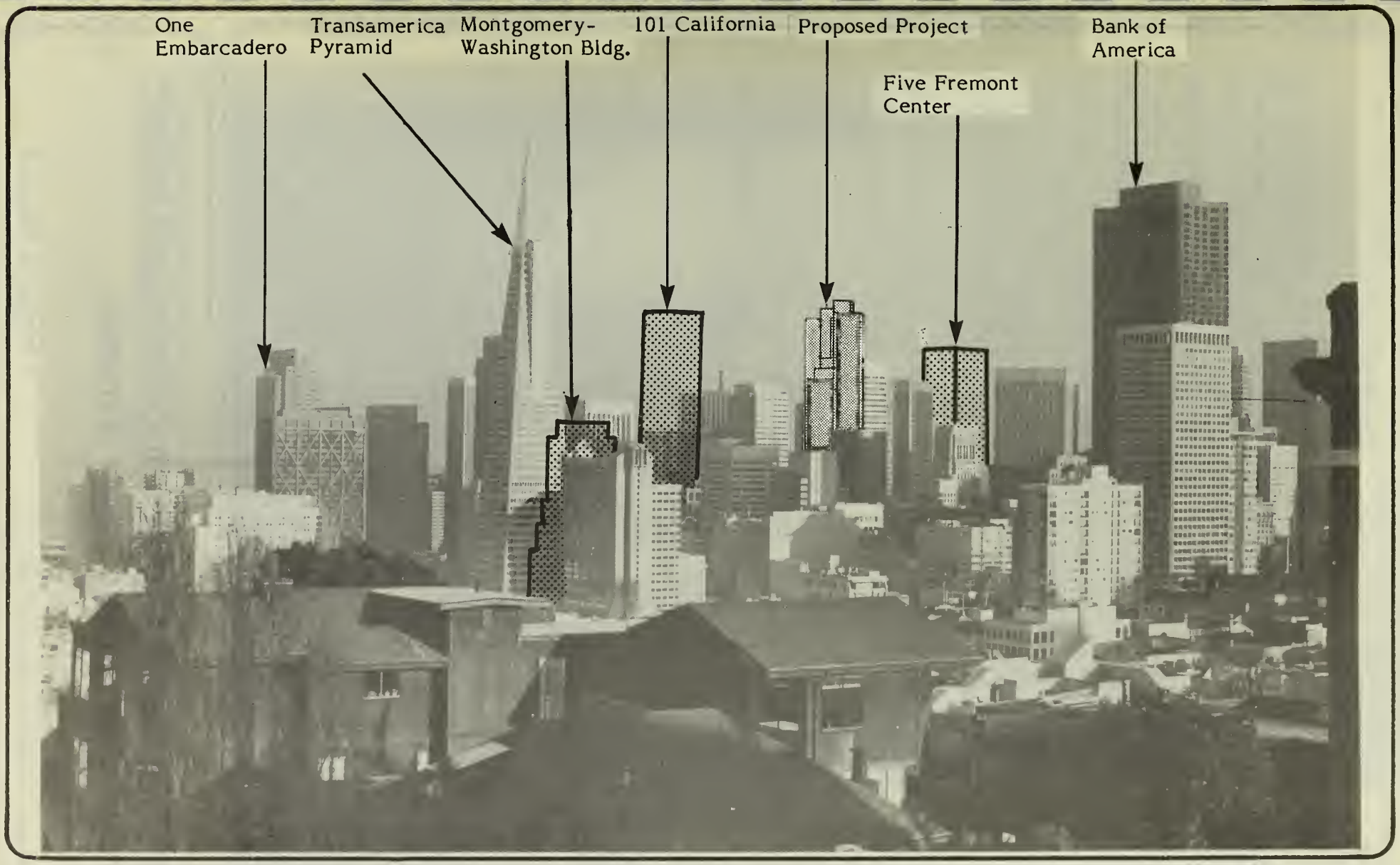
Figure No. 24 SOURCE: Skidmore, Owings & Merrill/EIP



Aerial View of Proposed Project looking southwest from 200 foot elevation

SOURCE: Skidmore, Owings & Merrill/EIP

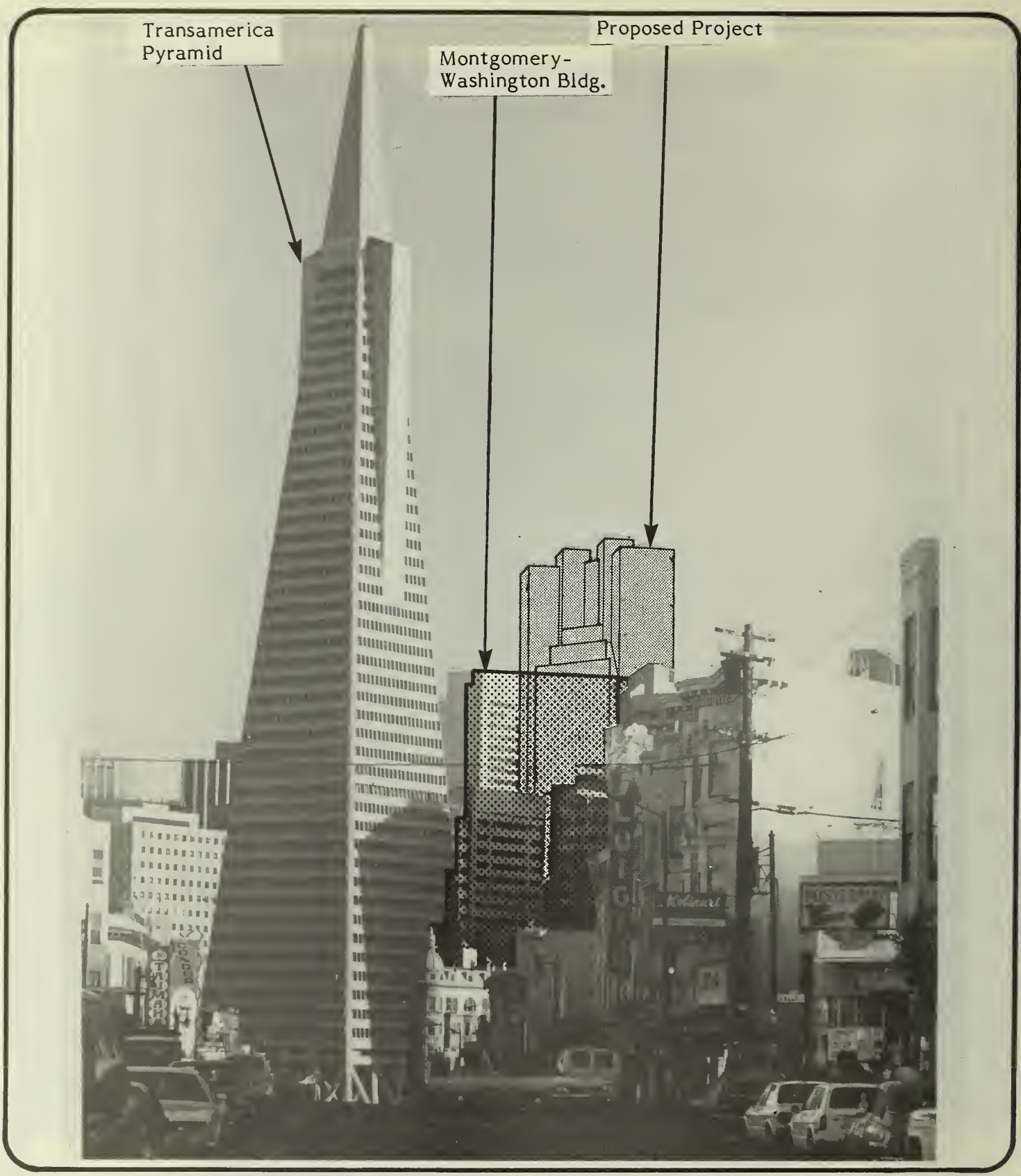
Figure No. 25



View of Proposed Project looking southeast from Russian Hill

Figure No. 26

SOURCE: Skidmore, Owings & Merrill/EIP



View of Proposed Project looking southeast from Columbus and Green Streets

SOURCE: Skidmore, Owings & Merrill/EIP

Figure No. 27

D. CULTURAL AND HISTORIC

The proposed project would not affect the remains of the ship Tecumseh in the intersection of Battery and California Streets as no construction in that intersection and on the southwest corner is anticipated.

The proposed project would remove the 333 California, the 141 Battery and the 244 Pine Buildings. The 141 Battery Building was rated "C" (contextual importance, see Appendix C, page A-37) by the Foundation for San Francisco's Architectural Heritage Survey. None of the buildings proposed for demolition is listed in the Department of City Planning's Architectural Survey.[1]

The Heritage Foundation passed a resolution 5 May 1981, supporting the general preliminary concept of development for the proposed project.[2]

After demolition of the 333 California Street Building, the project sponsor would restore to the original condition of 1921 the corners of the 2 buildings on California Street that face the main entrance to the proposed project. The actual treatment of the east side of the 351 California Building and the west side of the 311 California Street Building has not been determined. These buildings are not owned by the project sponsor. When these buildings were sold by the project sponsor, the terms of the sale indicated that architectural treatment after the demolition of the 333 California Street Building would be decided by the respective owners in conjunction with the project sponsor.

E. EMPLOYMENT, HOUSING AND FISCAL CONSIDERATIONS

1. Employment

Demolition of the 3 buildings on the project site, excavation and construction of the 333 California Building would displace about 460 people.[3] Demolition, excavation

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[1] Department of City Planning, "Architectural Survey of Significant Buildings in San Francisco," 1976.

[2] A copy of the resolution is on file with the Department of City Planning, Office of Environmental Review, for review.

[3] A survey of tenants was made 19 November 1981 by the project sponsor to their plans for relocation. This survey is listed in Appendix H, page A-90. About 75% or more plan to remain in San Francisco. The 25% balance is undecided.

and construction activities are expected to take about 2½ years and generate about 1,470 person-years of construction labor.[1] The average construction employment would be about 590 full-time positions at any one time during construction.

As a result of the multiplier effect of project construction, about 2,280 additional person-years of employment would be generated in the Bay Area.[2] Some of this secondary employment would be in San Francisco, although it is difficult to estimate the amount.

When the proposed building is fully occupied, about 2,700 permanent jobs would be provided for office, retail/commercial, janitorial maintenance, and residential support functions (such as maids, butlers, security, etc.) This would include about 2,400 office workers (at 1 worker per 250 square feet of office space for 601,200 square feet), 58 sales/retail workers (at 1 worker per 350 square feet of commercial/retail space for 12,000 square feet), 73 janitorial/service workers (at 1 worker per 12,000 square feet for the entire building), and about 160 positions for building security, parking garage and residential service. This represents a net increase of about 2,240 new jobs on site when the 460 existing positions on the site are subtracted.

The jobs generated by the proposed project would result in additional employment through the multiplier effect in the Bay Area. Assuming that the new jobs created as a result of the project were primarily in the finance, insurance and real estate industries, about 2,640 additional jobs in other sectors of the Bay Area economy could result.[3] Although the multiplier encompasses the entire Bay Area and the specific number of additional jobs in San Francisco as a result of the multiplier effect is not possible to calculate, it is likely

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[1] An estimated $80,000,000 (1981 dollars) would be spent during demolition, excavation, and construction. Assuming labor costs would be about 55% of the total ($80,000,000) x 55% = $44,000,000), including direct wages, payroll taxes and fringe benefits, and assuming an annual cost including wages, taxes and benefits of $30,000 per construction worker. George Lakin, Dinwiddie Construction Company, telephone conversation, 15 September 1981.

[2] All multipliers based on the Bay Area Input-Output Model from Cooperative Extension Service, University of California, Berkeley, San Francisco Bay Area Input-Output Model 1967-1974. This is the equivalent of a multiplier of 1.55 in that for each person-year of employment supported by project construction, an additional 1.55 person-years of secondary employment would be supported.

[3] This is the equivalent of a multiplier of 1.18 in that for each job created by the project, an additional 1.18 secondary jobs would be created, assuming that the jobs created are in the finance, insurance and real estate industries.

that many of the jobs would necessarily be in San Francisco, e.g. bicycle messengers, bus drivers, copy machine repairers, restaurant employees, printers.

The total number of permanent new Bay Area jobs that would be supported by the project's addition to the stock of downtown office space (and new residential units) would be about 4,480 (the 2,240 direct jobs plus the 2,640 jobs induced by the multiplier).

Estimates of the residential location patterns of office workers in the Financial District indicate that about 40% to 45% reside in San Francisco, 25% to 30% in the East Bay, 11% to 18% on the Peninsula, and 12% to 19% in the North Bay (Table 7, page 68).

2. Housing

The project would increase the demand for housing in San Francisco. According to one study it is estimated that 15% to 30% of the people newly employed in San Francisco as a direct result of the 333 California project would move to San Francisco.[1] The project would facilitate an increase in San Francisco office employment of approximately 2,400 jobs, plus 300 jobs in retail, janitorial, maintenance, and residential service. It is estimated that 360 to 720 office workers may move to the City as a result of the project. It is estimated that there are an average of 1.4 San Francisco workers in each San Francisco household which contains downtown workers. Therefore, the project may result in about 257 to 514 households moving into San Francisco.

According to San Francisco Department of City Planning policies, the housing requirement for the project would be 532 units.[2] This estimate assumes that 40% of new office workers will reside in San Francisco and that there are 1.8 office workers per household containing San Francisco office workers.

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[1] This estimate is based on Recht Hausrath analysis in 101 Montgomery EIR, EE 80.26, certified 7 May 1981, pages 289-299.

[2] $\frac{598{,}450 \text{ gross square feet}}{250} \times 40\% \div 1.8 = 532$

San Francisco Department of City Planning, Revised Guidelines for Administering the Housing Requirements Placed on Office Development under OHDD, December 7, 1981, page 5.

COMPARISON OF RESIDENTIAL PATTERNS FOR EMPLOYEES IN SAN FRANCISCO

Place of Residence	U.S. Census[1]	DCP Transportation Section[2]	MTC BART Survey[3]	SPUR[4]	EIR Data[5]	Project Area Data[6]
San Francisco	60%	58%	52%	40%	40%	46%
Peninsula	17%	14%	19%	13%	18%	11%
East Bay	13%	20%	18%	24%	30%	28%
North Bay	8%	8%	8%	19%	12%	13%
Elsewhere and Not Reported	2%	--	--	4%	--	2%
Area Covered	All of San Francisco	Civic Center Area	Downtown Areas Near BART Station	Greater Downtown Area	Selected Downtown Office Buildings	Project Site, 311 and 351 California
Employees Covered	All Employees	Government Employees	All Employees	Office Workers	All Employees of 4 Firms and the Federal Reserve Bank	All Firms in Project Site, 311 and 351 California
Date	1970	1978	1977	1974	1978-79	1981

Source: Recht Hausrath and Associates

[1] 1970 U.S. Census of Population, Journey to Work, Table 1.

[2] Survey of government employees within about a 3-block radius from City Hall, conducted by Department of City Planning Transportation Section, 1978.

[3] Metropolitan Transportation Commission (MTC) data on employees working within a 10-15 minute walk or bus ride from downtown BART stations. From 1977 Work Travel Survey for BART Impact Program.

[4] From survey of 1,022 office workers employed by 41 different firms located in area bounded by Van Ness, Broadway, The Embarcadero, and Bryant Street. San Francisco Planning and Urban Renewal Association, Impact of Intensive High-Rise Development on San Francisco, 1975, p. 110.

[5] Weighted average of expected employees in the Federal Reserve Bank (EE 78.207), 101 Califrnia Street (EE 78.27), Pacific Gateway (EE 78.61), and Crocker National Bank (EE 78.298). From 456 Montgomery Street EIR (EE 78.178), p. 126. See 101 Montgmery FEIR (EE 80.26), p. 293.

[6] Survey of four buildings in same block as proposed project (141 Battery, 244 Pine, 311 and 351 California) by Norland Properties, August 1981.

Table 8, page 70, suggests that if the new office employees of the project moving into San Francisco earn incomes representative of all office workers in the downtown, about 75% of them could afford at least the median-priced studio apartment in the city. The remaining 25% would either have to settle for units priced below the median or pay greater than 30% of their incomes for housing. About 13% to 24% of the workers could afford to purchase a housing unit in San Francisco.

A portion of those people with greater incomes may reside in the condominium units located in the upper 11 floors of the project, which may be priced from $350,000 upwards, with an average cost of $500,000. Based on a 20% down payment and a 30-year mortgage at 16 3/4% interest, the monthly payment for the lowest-priced units ($350,000) would be $4,920. If 30% of household income were devoted to housing payments, the required annual salary to purchase such a unit would be approximately $196,755. Less than 2% of the building's expected employees would be likely to qualify for purchase of the units.

The housing stock in the City is expanding, but not at a rate adequate to accommodate the needs of all the employees who move into San Francisco. Many factors, including job growth, have caused housing prices to rise both in the City and in the Bay Area. Low and moderate income households have been especially impacted as the tight market has led to "reverse filtration" of housing stock; middle-income households are now competing with low and moderate income households for the same housing stock.[1] As part of the proposed project, the project sponsor has agreed to rehabilitate 238 units of vacant low and moderate income housing units owned by the City Housing Authority.[2] This action would help alleviate some of the pressure on the City's housing supply, but it is unlikely that it would stop housing prices from rising.

The numbers of project office employees residing outside San Francisco able to afford various types of housing units are given in Table 9, page 71. The percentage of workers

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[1] City and County of San Francisco, Report of the Citizen's Housing Task Force, (29 July 1981), pages 114-115.

[2] The sponsor's cash contribution will be used to rehabilitate 238 units of public housing, all of which have been vacant for at least a year, (letter to the Director of City Planning from Carl L. Williams, executive director of the San Francisco Housing Authority, dated 1 October 1981), copy of which is available for review at the Office of Environmental Review. Subdivisions of 50 units or more require provision of a minimum of 10% low and moderate income housing, provided that the City Planning Commission finds that public subsidies are available (Section 1341 of San Francisco Subdivision Code).

TABLE 8

Estimated Number of Office Worker Households Able To Afford Various Monthly Housing Costs for the 333 California Office Building
(Based on 1981 Data)

Housing Type	Median Monthly Cost	Number of 333 California Employees*	% Able to[1] Afford Cost
Rental			
Studio Apartment	$ 440	1,800-1,850	75-77
One Bedroom	500	1,730-1,750	72-73
Two Bedroom	560	1,610-1,630	67-68
Three or More Bedrooms	590	1,580-1,610	66-67
1980 Census Median Rent	310	2,400	100
Purchase			
New Single Family	$1,570	340-360	14-15
Existing Single Family	1,500	310-340	13-14
Condominium	1,140	530-580	22-24
1980 Census Owner-Occupied Dwelling	1,215	480-530	20-22

[1] The table assumes that all employees are part of households and does not reflect availability of housing, just the affordability. Households are assumed to spend 30% of income on housing.

Source: EIP, based on information in Table 4, page 40 and 2,400 office employees.

*Numbers are slightly rounded.

TABLE 9

Estimated Number of Office Worker Households Residing Outside San Francisco Able to Afford Average Priced Housing and Rental Units for the 333 California Office Building

		Average Housing Price	Monthly[2] Housing Cost	Total Employees	Percent Able to afford[3] Monthly Cost	Number Able to afford Monthly Cost
East Bay		$115,025[1]	$1,160	432	23%	99
Rental:[4]	Studio		—		—	--
	1-bedroom		277		100	432
	2-bedroom		320		100	432
	3-bedroom		417		79	341
North Bay		154,457[1]	1,560	173	16	28
Rental:[5]	Studio		256		100	173
	1-bedroom		386		82	142
	2-bedroom		479		74	128
	3-bedroom		654		62	107
Peninsula		160,103[1]	1,620	260	14	36
Rental:[6]	Studio		350		100	260
	1-bedroom		450		76	198
	2-bedroom		550		69	179
	3-bedroom		750		53	138

[1] Real Estate Research Council of Northern California. Real Estate Report, April 1981, p.4.

[2] Estimate of purchase cost for homes assumes 20% downpayment with a 30-year mortgage at a fixed interest rate of 15%.

[3] The table assumes that all employees are part of households and does not reflect availability of housing, just the affordability. Households are assumed to spend 30% of income on housing.

[4] Average rental rates in the cities of Hayward and Pittsburg provided by Mark Miller, Rent Review Officer, City of Hayward, January 11, 1982; and Ted Spagopulos, Housing Manager, Pittsburg Housing Authority, January 12, 1982.

[5] Average rental rates of Napa, Marin and Sonoma counties obtained from Joyce Trentoste, Napa Housing Authority, January 6, 1982; Tina Vera, Planner, Sonoma Housing Authority, January 12, 1982; EIP survey of published rental rates in Marin County.

[6] San Mateo County rates provided by Marty Boat, Urban Planning Economist, San Mateo County, January 6, 1982.

able to afford to purchase a home ranges form 23% in the East Bay to 14% on the Peninsula. Virtually all the employees could afford the median priced studio apartment in the respective sub-regions.

The project would have an impact on regional cumulative demand for housing. Table 10, page 73, indicates that the project housing demand ranges from less than 1% up to 10% of projected housing growth from 1980 to 1985.

3. Fiscal Considerations

a. Revenues

The proposed project would generate revenues from property tax, business tax, utility users tax, real property transfer taxes on the condominiums, sales tax from the retail/commercial area, and parking tax from the garage (although a portion of the spaces would be reserved for residents and not subject to parking tax).

Assessed Valuation and Property Tax. Based on replacement costs, the minimum fair market value of the proposed project would range from $80,000,000 to $116,000,000 or more in 1981 dollars (depending on the individual cost of the condominiums, which has not been determined, but is assumed for this analysis to average $500,000 per unit x 55 units.) Assuming the property would be assessed on the basis of full replacement costs, the assessed value of the project could be $20,000,000 to $29,000,000. Total annual property taxes would be $800,000 to $1,160,000 at 1% full value allowed under Proposition 13 plus an additional levy for repayment of existing bonds previously approved by the electorate (the current total rate for the 1981-1982 fiscal year is $1.19 times 1% full cash value) leading to a total that could range from $52,000 to $1,380,000. It is not known at present how the property taxes would be distributed in the year of completion of the project (1985); however, applying the 1981-1982 rate, San Francisco could receive from $754,940 to $1,094,340 from the project (79.3% of the total composite property tax revenues). Subtracting the market value of the existing land and improvements on the project site which total about $6,500,000, the net addition of the San Francisco property tax base would be from $73,500,000 to $109,500,000. The net increase over existing composite property tax revenues to San Francisco would be between $874,300 to $1,302,300 a year.

TABLE 10

Projected Effects of Downtown Office Development
On Regional Housing Markets

Housing Market	Residency of San Francisco Office Employees	Housing Units[2] Demanded	Household Cumulative Demand[3] 1981-1985	Net Housing[4] Stock 1981-1985	Project Demand as % of Growth 1981-1985
San Francisco	40%	533	10,500	6,000-8,000	6.7 to 8.9
North Bay	12%	240	4,740	16,500-25,000	1.0 to 1.5
Penninsula	18%	332	6,560	52,000-68,000	0.5 to 0.6
East Bay	30%	554	11,000	51,000-62,000	0.9 to 1.1
TOTAL	100%	1,659	32,800	125,500-163,000	1.0 to 1.3

[1]Based on EIR data presented in Table 4, page 40 of the present study.

[2]Project office workforce of 2,400 and a ratio of 1.8 workers per household for San Francisco, 1.2 for North Bay and 1.3 for the Penninsula and the East Bay.

[3]Cumulative housing demand calculated from quantities of office space shown in Table 4 as completed in 1981/1982 (3.138,000 sq. ft.), under construction in 1983/84 (5,600,000 sq. ft.) or approved (3,113,000 sq. ft.)

[4]Based on straight-line projections of levels of building permit activity reflected in ABAG, Housing Activity Report, No. 3, May 1981. High ranges reflect annual average over the period 1976-1980. Low ranges are extrapolated from 1980 average only to indicate possible continued reductions in housing production.

Business Tax. The business tax is actually comprised of 2 taxes: gross receipts tax and payroll tax.[1] Revenues from these taxes would be generated by businesses which occupy the project and by owners of the project who would pay a tax on the rents they receive. Business tax revenues have been estimated at $487,000 for every million square feet of office space.[2] Therefore, annual business tax revenue from the project would be about $300,000 (in 1980-1981 dollars).

Sales Tax. Sales tax revenue would be generated both by the purchases made by project employees, and the retail sales made in the retail space on the first 2 floors of the project.[3] Taxable purchases by project employees would be about $38,000; sales tax revenues from the 18,500 square feet of retail space would be about $48,800.

Utility Users Taxes. Utility users tax revenue is paid on the cost of electricity, gas, water, and telephone use.

Water

Based on approximately 2,700 employees and 55 apartment units, the San Francisco Water Department annual bill would be $139,000, and the utility user's tax on the bill (5%) would be $6,900 per year.[4]

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[1] San Francisco businesses with over $250,000-$500,000 in gross receipts (depending on which of the 15 classifications includes their firm) or over $45,450 in reported taxable payroll pay either of 2 taxes. The gross receipts tax is calculated by applying the rate specific to a firm's business classification to the firm's gross receipts; rates range from 1 dollar per $1,000 to 2 dollars per $1,000. The payroll tax is calculated by applying a rate of 1.1% to a firm's reported taxable payroll. Each firm is supposed to calculate its tax based on both methods and pay the larger amount of the two.

[2] Gruen Gruen + Associates, Fiscal Impacts of New Downtown High-Rises on the City and County of San Francisco, San Francisco, March 1981, page 116 and Arthur Anderson and Co., Downtown High-rise District Cost-Revenue Analysis, November 1980, pages 35-38. These estimates were based on actual tax collections by the City for the C-3-0 District.

[3] The sales tax revenue from the project is estimated as the greater of these 2 sources. To count them both would be to double-count some sales tax that, for example, are made by project employees in retail stores in the project. Taxable expenditures per employee in 1980-1981 are $1,100 (101 Montgomery EIR, EE80.26, certified 7 May 1981). Sales tax revenues are calculated at 1.25% tax rate to San Francisco. Sales tax revenue per 1 square feet of commercial space is estimated to be $2.64.

[4] Mrs. Frank, supervisor of Consumer Accounting, San Francisco Water Department, telephone conversation, 19 November 1981.

Gas & Electricity[1]

Gas: (3,500 therms/month) x 46¢/therm x 12 months = $19,300 gas bill

Electricity: (887,000 kwh/month) x 7.3¢/kwh x 12 months = $777,000 annual electric bill

Utility user's tax = 5% ($777,012 + $19,320) = $39,800

Telephone[2]

Office: 598,450 square feet x $2.42/square feet = $1,449,000

Residential: 55 units x $30/month/unit x 12 = $19,800

Tax: 5.5% (1,449,000 + 19,800) = 80,800

Total Utility User's Tax is $127,500

Other Local Revenues. A parking tax of 15% of gross sales would be levied on those portions of the parking garage that are not reserved for residents. A real estate transfer tax of $5 per $1,000 selling price of the condominium units would accrue to the City when the condominium units are resold. The actual number of units and the probable prices are not known at this time.

Total Revenues. The potential increased revenues to San Francisco could range from $1,400,000 to $1,900,000; however, this range is subject to a number of variables that could affect the estimate:

- Property tax distribution could change in future years
- Payroll tax could vary according to the salaries of the employees in the proposed project
- Rents of the offices and sales prices of the condominiums may change, thereby affecting the gross business tax and real estate transfer tax
- Cost for utilities, particularly telephone, are also variable

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[1] Joe Fowler (gas) and Julian Ajello (electricity), California Public Utilities Commission, telephone conversation, 20 November 1981.

[2] Based on estimates from 101 Montgomery Final EIR, EE80.26, certified 7 May 1981, page 90.

b. Costs

Costs to San Francisco for providing municipal services to the proposed project are difficult to quantify.[1] Existing services near the site can accommodate the proposed project without additional facilities and/or manpower, assuming that the project is constructed in accordance with the public codes. Existing public works costs for street repair, drains, street lighting and cleaning would not measurably increase.[2] Police and fire protection costs would not increase due to the proposed project;[3] however,

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[1] Page A-86 discusses some of the differences of various approaches that have attempted to address the issue of municipal costs downtown. Studies done by Arther Anderson & Company (Downtown Highrise District Cost Revenue Study, November 1980 for the San Francisco Chamber of Commerce) and by David Jones (Downtown Highrise District Cost Revenue Study, February 1981 for San Franciscans for Reasonable Growth) examine the fiscal impact of the existing downtown. The three other studies address the question of what the fiscal impact of new development would be (Gruen Gruen + Associates study cited above; Sedway/Cooke et al., "Fiscal Concerns" in Downtown San Francisco Conservation and Development Planning Program, Phase I Study, October 1979; and Recht Hausrath & Associates, "Fiscal Considerations," Appendix C, 101 Montgomery Street REIR EE80.26 certified 7 May 1981.)

From the figures in Table III-42, p. 99, in the Gruen Gruen + Associates study, total added direct service costs for the next 5 million square feet after 10 million square feet have been added to the 1980 stock downtown equal $1,494,031. This figure minus the additional cost for Muni of $357,690 equals the direct cost for services other than Muni of $1,136,341. This amount divided by 5 million square feet equals the cost per square foot of $0.277. (The costs for Muni are excluded here because the PUC staff has since developed more current Muni cost estimates.)

These additional direct costs generated by new downtown development were estimated based on interviews with agency staff and on examination of the Arthur Anderson & Company study of current downtown service costs, computer print-outs from City departments, and City budgets and appropriations documents. Cost estimates assume that current service levels downtown would be maintained as the amount of building space increases.

Public service costs, excluding MUNI, would be $0.227 per net addition of 1 square foot of space. The project would result in a net addition of 465,450 square feet of space. The net increase in non-MUNI costs using this method resulting from the project in 1984-85 would be $105,860 (1980-81 dollars).

[2] John Hines, Deputy Director Operations, San Francisco Public Works Department, telephone conversation, 17 August 1981.

[3] Paul Libert, Officer, Planning and Research, telephone conversation, 19 November 1981; Joseph Sullivan, Chief, Support Services, San Francisco Fire Department, letter, 28 June 1981. At present, neither the police nor the fire department has a methodology to determine the actual costs for increased development on a marginal cost basis.

cumulative costs could increase due to downtown growth. User charges for water and sewer service would cover the cost for the expansion of such services.[1]

Cost increases due to increased patronage would be expected for MUNI, SamTrans, BART, and Golden Gate Transit. Capacity increases (see Section IV.F, page 86) are based on the anticipated revenues projected by the transit districts.

The City's general fund provides for a subsidy to the Municipal Railway's operating budget. The subsidy covers the difference between MUNI's costs and the revenue that MUNI receives from fares and from the federal and state governments. This subsidy represents the costs of MUNI to the City.

The net marginal cost (or increase in the deficit for MUNI operations) per peak hour ride is $0.42 in 1982.[2] The proposed project would generate about 1,160 peak hour trips (see Table 11, page 78) which could generate a cost to the MUNI of $127,800.[2] The extent to which this cost would be met by an increase in the general fund allocation to MUNI is not known. State and Federal funds to MUNI are decreasing and the City is reviewing such options for increased revenues as a raise in fares, special assessment district and other sources of funds.[3]

It is estimated that 620 peak hour trips a day would be generated by the proposed project employees on BART. The deficit per rider for BART is estimated at $1.33.[4] Using this rate, the proposed project would generate a deficit of about $214,400.

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[1] J.E. Kenck, Manager, City Distribution Division, San Francisco Water Department, telephone conversation, 13 July 1981; Nat Lee, Investigations Specialist, Sanitary Engineering, San Francisco Clean Water Program, telephone conversation, 23 June 1981.

[2] Bruce Bernhard, "The Marginal Cost of Peak Period MUNI Passenger Trips per Unit of Office Space," San Francisco Utilities Commission, February 1981. 1,160 x 42¢ x 260 working days a year = $127,800.

[3] Bruce Bernhard, San Francisco Public Utilities Commission, conversation, 18 January 1982.

[4] Department of City Planning, 101 Montgomery EIR, EE80.26 Certified 7 May 1981, page 42, 620 rides x 260 working days x 1.33 = $214,400.

If the historic proportion of General Fund revenues continued to be allocated to MUNI, it could be assumed that the proposed project revenues would exceed municipal cost directly attributed to the project at time of occupancy. Due to limitations imposed by Proposition 13 on property tax increases, revenues may not increase as rapidly as inflationary increases in City costs. If all current sources of revenue associated with the proposed project are held constant (i.e. fees and rates do not chnge and no new assessment levied) costs would eventually exceed revenues.[1]

Elimination of the existing 3 buildings and construction of the project could increase general fund revenues to the City by $1.8 to $1.5 million. Actual costs are not possible to determine, but could range from $118,000 to $224,000 depending on the assumptions used.[2]

F. TRANSPORTATION, CIRCULATION AND PARKING

1. Estimated Travel Demand of Proposed Project

The proposed office/residential project at 333 California Street would generate approximately 10,480 person-trips per day (see Table 11, page 79). Assuming 20% of the trips to be driving in the afternoon rush hour, about 2,020 person-trips would be generated during the p.m. peak hour (see Table 12, page 80).

Of the total 2,080 p.m. peak hour person trips, 1,300 would be made via transit, 730 by auto, and 50 by other modes. Trips using MUNI to access the other regional transit carriers are double-counted, thus, the sum of the trips made by each mode would exceed the above given total p.m. peak hour trips by approximately 3% (see Table 12, page 80).

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[1] 101 Montgomery Street Final EIR, EE.80.26, certified 7 May 1981, Appendix C, pages 316-318.

In addition, the project sponsor may be required to pay a one-time Transit Impact Fee. This fee requires developers of office projects in San Francisco to contribute to a fund to finance the increased costs of MUNI services necessitated by their projects at the rate of $5 per gross square foot of new construction. The legality of this Ordinance which is being challenged and currently pending in San Francisco Superior Court. If the fee is actually administered at the $5 rate, the project could yield $3,030,000.

[2] Several studies of the cumulative fiscal effects of downtown development have been done by experts, and results differ depending on the assumptions used. A summary comparison of the studies is provided in Appendix H, page A-86.

TABLE 11

Estimated Trip Generation of Proposed Project

Use	Net Floor Area	Daily[1] Trip Rate	Daily Person-Trips	% Peak Hour	PM Peak Hour Person Trips
Office	542,200 sq. ft.	0.0175/sq. ft.	9,490	20%	1,900
Retail	18,500 sq. ft.	0.0300/sq. ft.	560	12.5%	70
Residential	55 units	7.0 trips/unit	385	11.5%	40

[1] Sources: Attachment 1, City of San Francisco, Guidelines for Environmental Evaluation: Transportation Impacts, June 1980, Revised November 1980; Final EIR, One Sansome Building, EE 78.334, certified 6 August 1981; ITE Trip Generation Manual, 2nd edition, 1979.

Retail Person Trip Generation Rates are based on One Sansome Building EIR, EE 78.334, page 280 and 101 California EIR EE 78.27 page 88.

The ITE Trips Generation Manual (2nd Edition -1979) suggests rates varying from 170 trips ends to 30 trip ends per 1,000 square feet gross leasable area depending on the size of the shopping center. As the shopping center increases in size more multi-purpose trips are made to the center, thus reducing the new trips generated per additional floor area. Downtown San Francisco is a major shopping center where the 30 trip-end rate could be expected to apply.

TABLE 12

PM Peak Hour Modal Split and Trip Distribution
Of Proposed Project

Mode	Destination	Percent[3,4,5]	Person Trips	Vehicle-Trips[1]
Auto	San Francisco	13	260	200
	East Bay	9	180	140
	Peninsula	8	160	120
	North Bay	6	130	100
Transit	MUNI	29[2]	580[2]	---
	BART	15	310	---
	AC Transit	8	170	---
	SamTrans	2	30	---
	S.P.R.R.	4	90	---
	G.G.T. Bus	5	90	---
	G.G.T. Ferry	1	30	---
		64	1,300	
Other (Bike, Pedestrian, Other)		3	50	---
TOTAL		103%	2,080	560

[1] Assumes 1.3 persons per auto occupancy.

[2] Includes MUNI transfers to other carriers and thus total of all modes equals 103% of trips generated.

[3] San Francisco Department of City Planning, Guidelines for Environmental Evaluation: Transportation Impacts, June 1980, Revised November 1980, Attachment 1 (subject to update when additional information is available).

[4] San Francisco Department of City Planning, Final EIR, One Sansome Building, EE 78.334, certified 6 August 1981, page 282.

[5] Column does not add due to independent rounding of numbers.

The trip generation of the project was estimated based upon trip rates and mode split data provided by the City for office buildings, and information available in other EIRs for retail and residential developments. Further details regarding the calculations are contained in Appendix D, page A-49.

2. Basis for Impact Analysis

The proposed project is expected to be completed by 1985. All currently approved projects in downtown San Francisco (C-3-0 District) are listed in Table A-1, page in Appendix D. This list was used to generate projects the base 1985 estimates for traffic, transit, pedestrians and parking. A total of 7.48 million gross square feet have been approved or are under construction but not yet completed. The cumulative impacts analyses include the effects that could result if all currently proposed projects were also approved. Table A-1, page A-50 lists these projects. A total of 12.2 million gross square feet of office/retail space are being reviewed, have been approved or are under construction in the C-3-0 Downtown District. For the entire City about 18.4 million gross square feet of office space are proposed, approved or under construction which would be added to about 57 million gross square feet of existing office space.

3. Traffic Impacts

Table 13, page 82, presents the estimated 1980 24-hour and p.m. peak-hour traffic volumes for the project area streets. Market, Battery and California Streets carry the greatest daily volumes.

By means of field observations, traffic counts and "Critical Movement Analysis," the p.m. peak hour service levels of the critical intersections have been calculated and are shown in Figure 28, page 83 (see Table A-2, Appendix D, page A-51 for service level definitions). The critical intersections that are moderately to extremely congested are generally located along Market and Mission Streets. Their afternoon peak hour level of service range from "D" to "F" (capacity). Level of service "E" is the maximum physical capacity for traffic through the intersection.

Intersections on Battery Street from Clay to Market Street are affected by congestion at the intersection of Mission and First Streets. When congestion at this intersection is severe, queuing vehicles on Battery force the intersections at Market and at Pine to operate at level of service F.

TABLE 13

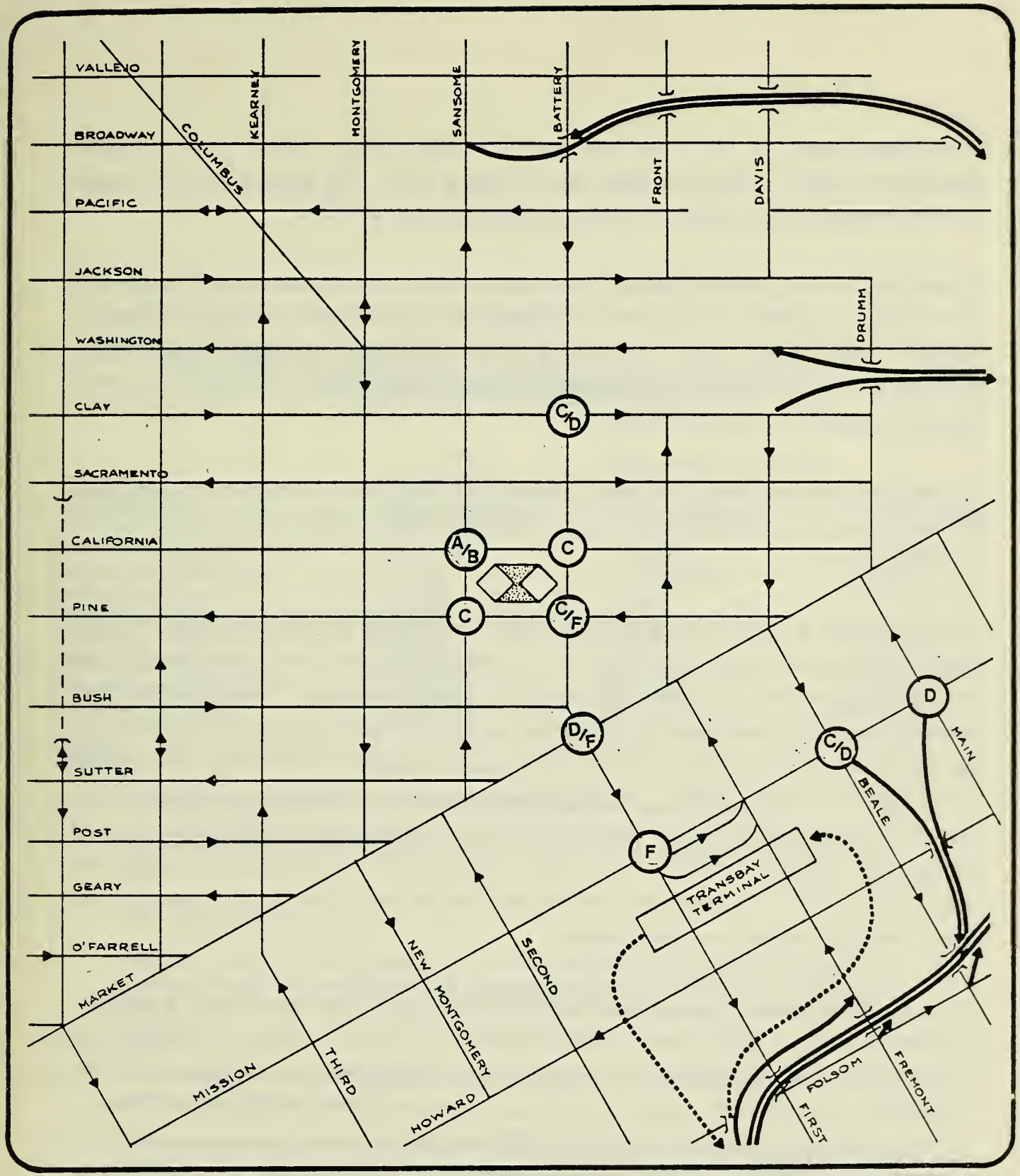
Existing Traffic Volumes on Streets
In Vicinity of 333 California

Street	Segment	Dir.	24-Hour	PM Peak Hour	Date
MARKET	West of First St.	EB	6,611	522	8/80
		WB	9,909	761	8/80
	West of Beale St.	EB	9,157	758	8/80
		WB	6,538	449	8/80
BATTERY	North of Sacramento St.	SB	14,518	1,291	9/78
	North of Pine St.	SB	11,009	998	6/81*
CALIFORNIA	East of Battery	Both	10,000	600	est.**
PINE	East of Sansome	WB	11,489	1,287	6/81*
	East of Kearny	WB	10,360	1,253	9/80
SANSOME	South of California	NB	9,226	960	6/81*
CLAY	West of Kearny	EB	7,343	518	8/78

Note: All counts by San Francisco Department of Public Works except where noted with asterisks.

*Counts made by Traffic Data Services for DKS Associates, 11 June 1981 (Thursday).

**Estimated count based on 1974 - 1976 Traffic Flow maps by City Division of Traffic engineering. DKS assumed that traffic counts had not changed in 5 years along California, based on actual counts of Battery, Pine and Sansome Streets during that same time period (1976-1981). Proposed peak hour rates are shown in Table 14.



Legend:

- One Way Streets
- AC Transit
- (A) Traffic Service Level Intersections

North

NO SCALE

Current PM Peak Hour Levels of Service

Sources: DKS Field Studies, Five Fremont Center Final EIR EE 80.268 pg. 53.
Date certified: 3/12/81

Figure No. 28

Cumulative growth in San Francisco would increase traffic volumes at the critical intersections listed in Table 14, page 85, by roughly 10%. The proposed project would further increase traffic volumes at these intersections by 1% to 2%.

Congestion at the intersection of First and Mission would back up through the intersections of Battery and Market and Battery and Pine Streets. Queuing vehicles on Battery Street would reduce the peak hour capacities of these intersections. Patrolpersons are occasionally stationed at Battery and Market and Battery and Pine Streets to keep the intersections clear.

Without the proposed project the above intersections would still experience the same level of congestion. Other intersections north on Battery would continue to operate at a "D" level of service.

The Bay Bridge is currently operating at capacity during the evening peak hours. Excess demand is stored on the approach ramps to Interstate 80 and 480 (The Embarcadero). The streets leading to the ramps are often blocked by queuing vehicles. The completion of all approved projects in downtown San Francisco would increase peak period demand for the Bay Bridge by 16% over current levels. The proposed project would increase this demand by an additional one percent. If all projects currnetly proposed for downtown San Francisco were approved and completed, the peak period demand for the Bay Bridge would increase an additional 17% for a total increase over existing demand levels of approximately 31%. This demand estimate assumes that the mode split of automobile and transit would be similar to current levels.

The impact of increased peak period demand for the Bay Bridge would be to extend the duration of the peak period over a greater amount of time each day and to increase the extent of queuing of vehicles on streets at the approaches to the freeways. The intersections along Battery, Market and Mission Streets and other major arterial streets in the downtown area would operate at "E" to "F" level of service as increased congestion at the freeway ramps obstructs additional intersections.

TABLE 14

Projected PM Peak Hour Level of Service[1] at Critical Intersections
With and Without Proposed Project

Intersection	1981 Existing Level of Service	1985 Level of Service Without Project[2]	With Project
Battery and Clay[4]	C/D (0.80)[3]	D (0.88)[3]	D (0.88)[3]
Battery and California	C (0.73)	C/D (0.80)	D (0.81)
Battery and Pine	C/F (-)[5]	F (-)[5]	F (-)[5]
Battery and Market	D (.083)	F (-)[5]	F (-)[5]
Mission and First[6]	F (1.00)	F (1.00)	F (1.00)
Mission and Beale	C/D (0.78)	D (0.86)	D (0.86)
Sansome and California	A/B (0.59)	B (0.65)	B (0.67)
Sansome and Pine	C (0.74)	D (0.81)	D (0.82)

NOTES

1. See Table 2, Appendix D, p. A-59 for definitions of Level of Service.

2. Includes approved and for under construction projects listed in Table A-1 page A-50.

3. Volume to capacity ratio.

4. Most approaches to this intersection would operate fairly freely however, the southbound left turn off Battery is congested by heavy pedestrian movements at this intersection. The level of service shown here reflects this left turn movement only.

5. These intersections will operate at volumes lower than capacity because of queuing vehicles on Battery Street.

6. As demand increased this bottleneck intersection would continue to operate at capacity. The added demand would occur at the intersections of Market and Battery, and Pine and Battery, which would operate at level of service "F".

4. Transit Impacts

The projected line by line p.m. peak load factors (the ratio of riders to seats) for the San Francisco MUNI are shown in Table 15. The proposed project would increase peak hour load factors by an additional 1% to 3% depending on the specific line. The current service objective of MUNI is to provide enough service so that peak period load factors do not exceed 1.5 passengers per seat. If all approved projects were completed by 1985 (See Table A-1 page A-50), the average load factor for all lines would increase by 40%. The average p.m. peak hour load factor (outbound) would reach 99% of MUNI's maximum desirable load factor.

If all currently proposed projects were approved without change and all approved projects completed, peak hour load factors on MUNI would exceed the desirable maximum level by 21%. Individual lines could experience increases slightly above or below this level as shown in Table 16, page 88. MUNI's 5 year plan calls for various service improvements to downtown San Francisco designed to increase peak hour capacity by about 26%.[1]

The projected regional carrier load factors for the p.m. peak hour, assuming completion of all approved projects in Table A-1, are shown in Table 16, page 88. SamTrans is the only carrier that is projected to experience load factors exceeding 1.5. If all currently proposed projects were approved, the regional carriers would experience the p.m. peak load factors shown in Table 16. AC Transit and SamTrans would experience load factors around 1.5 or greater.

BART is planning service improvements such as the Daly City turnaround, new cars and improved controls that would increase p.m. peak hour capacity outbound from San Francisco by 70% to 85% by 1985-1986.[2] BART's service objective of 1.3 passengers per seat would continue to be met during the p.m. peak hour average if the planned capacity improvements are implemented.

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[1] San Francisco Municipal Railway, Five Year Plan: 1980-1985, 1 April 1980.

[2] BART, 1981 Short Range Transit Plan, Final Draft, May 1981

TABLE 15

Muni Projected Load Factors PM Peak Hour [1,2]
(Outbound Direction)

Line	1980 Existing Ridership	1980 Existing Capacity Factor	1985 Project Capacity Factors[3,4,5] With All Approved Projects	With 333 Calif. Project[6]	With All Proposed Projects[6]
1	400	0.89	1.08	1.10	1.34
1X	613	0.82	.99	1.01	1.23
2	572	0.95	1.15	1.17	1.43
3	511	0.97	1.18	1.20	1.46
4	235	0.63	.76	.78	.95
5	986	0.77	.93	.95	1.16
6	500	0.74	.90	.92	1.12
7	327	0.73	.89	.91	1.11
8	658	0.59	.72	.74	.90
9	531	0.71	.86	.88	1.07
11	676	0.90	1.09	1.11	1.35
12	487	0.93	1.13	1.15	1.40
14	1,215	0.95	1.15	1.17	1.43
14GL	253	0.84	.95	.97	1.18
14X	655	0.97	1.18	1.20	1.46
15	887	0.91	1.10	1.12	1.37
16X	540	0.72	.87	.89	1.09
17X	260	0.69	.84	.86	1.05
19	528	0.64	.78	.80	.98
21	660	0.83	1.01	1.03	1.26
25	495	0.77	.93	.95	1.16
27	158	0.53	.64	.66	.80
30	1,067	0.75	.91	.93	1.13
30X	822	0.84	1.03	1.05	1.28
31	498	0.95	1.15	1.17	1.43
31X	569	0.84	1.03	1.05	1.28
32	416	0.40	.49	.51	.62
38	989	0.88	1.07	1.09	1.33
38L	656	0.97	1.18	1.20	1.46
38aX	503	0.84	.95	.97	1.18
38bX	194	0.65	.79	.81	.99
40X	321	0.61	.74	.76	.93
42	230	0.77	.93	.95	1.16
45	615	0.91	1.10	1.12	1.37
47	755	0.84	1.03	1.05	1.28
55	1,456	0.88	1.07	1.09	1.33
66	186	0.50	.61	.63	.77
71	379	1.01	1.22	1.25	1.52
72	276	0.92	1.12	1.14	1.39
80X	433	0.72	.87	.89	1.08
J	798	0.65	.79	.81	.99
K,L,M	3,119	0.80	.97	.99	1.21
N	2,050	0.85	1.03	1.05	1.28
	28,479	.80	.97	.99	1.21

Assumptions:
1. It is assumed that the distribution of projected additional ridership by each line would be proportional to the distribution of the existing ridership.
2. Increases in Muni capacity were assumed according to current 5-year plan.
3. Probable error could exceed 50% due to seasonal variations, breakdowns, schedule changes, gasoline availability, and downtown growth.
4. Capacity factor equals the number of passengers divided by 1.5 times the number of seats available.
5. Approved projects are listed in Table A-6, page A-54.
   Proposed projects are listed in Table A-4, page A-52.
6. Includes Base 1985 with approved projects.

TABLE 16

Regional Transit Impacts
PM Peak Hour, Outbound Direction From
San Francisco C.B.D.

	1981 Existing			1985 Approved Projects			1985 + 333 Calif.		
CARRIER	PASS	SEATS	L.F.	PASS	SEATS	L.F.	PASS	SEAT	L.F.
BART									
-Daly City	5,900	6,200	0.96	7,400	11,000	.067	7,500	11,000	0.68
-East Bay	11,900	8,600	1.37	14,800	14,700	1.01	15,000	14,700	1.02
AC Transit	9,100	9,700	0.95	11,500	9,700	1.19	11,700	9,700	1.21
SamTrans	1,600	1,400	1.16	2,200	1,400	1.57	2,200	1,400	1.57
S.P.R.R.	4,100	4,700	0.88	5,300	5,300	1.00	5,400	5,300	1.02
Golden Gate									
-Bus	5,100	6,200	0.83	6,500	7,400	0.88	6,600	7,400	0.89
-Ferry	1,100	1,400	0.79.	1,400	1,400	1.00	1,400	1,400	1.00

Sources

1. San Francisco Municipal Railway, Five Year Plan: 1980-85, 1 April 1980.
2. A.C. Transit, Five Year Plan: 1982-1986, 13 May 1981.
3. BART, 1981 Short Range Transit Plan, Final Draft, May 1981.
4. Jim Dettart, SAMTRANS Planning Dept., 21 Sept. 1981.
5. Al Zahradnik, Golden Gate Transit Planning Dept., 8 Feb. 1982.
6. Caltrans/Southern Pacific Peninsula Train Service, Five Year Plan: 1982-86, July 1981.

NOTES:

S.P.R.R. = Caltrans/Southern Pacific Peninsula Service
Pass = Passengers
L.F. = Load factor (Passengers ÷ Seats) Approved projects are as listed in Table A-6, page A-54..

The current service objective of AC Transit is to provide enough service so that peak hour load factors do not exceed 1.25 passengers per seat.[1] This objective would continue to be met on the average for all lines if the proposed project and all approved projects were completed. The construction of all projects currently proposed in Downtown San Francisco would exceed the service objectives unless transbay service were increased. The AC Transit District currently has no plans to increase San Francisco services due to funding constraints.[2]

The CalTrans and Southern Pacific Penninsula Commute Service has proposed to increase its train fleet which could result in a 10-15% increase in capacity.[3] SamTrans is exploring the potential to improve the express bus service from San Mateo County to San Francisco, utilizing the Southern Pacific Depot as a terminus, however, no expansion plans have been developed.[4]

5. Parking Impacts

The completion of all approved projects in downtown San Francisco would generate a demand for 11,500 new off-street parking spaces by 1985. The proposed project would generate an incremental parking demand for roughly 710 long-term spaces and 150 short-term spaces for a total of 860 spaces of which 139 would be accommodated on site leaving a demand for 721 spaces.[5] The project would reduce 300 parking spaces on-site to 150

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[1] AC Transit, Five Year Plan: 1982-1986, 13 May 1981.

[2] AC Transit, Five Year Plan: 1982-1986, 13 May 1981.

[3] Caltrans/Southern Pacific Peninsula Train Service, Five Year Plan: 1982-1986, July 1981.

[4] Jim DeHart, SamTrans Planning Department, telephone conversation 21 September 1981.

[5] The total daily vehicle trips generated by the project were split into 55 percent work trips and 45 percent non-work trips (since some retail use is proposed on-site, the 57 percent work, 43 percent non-work split given in Attachment 1 of the City's Environmental guidelines for office buildings only was revised slightly downward). The work trips were assumed to be long-term parkers. The non-work trips were assumed to be short-term parkers.

The turnover rates were estimated to be one vehicle per space per day for long-term parkers and four vehicles per space per day for short-term parkers. These rates were taken from the EIR, One Sansome Building, EE78.334, certified 6 August 1981, page 105. The notes in 101 Montgomery EIR, EE 80.26, certified 7 May 1981, page 98 was a slightly higher turnover rate for non-work trips of 5.7 vehicles per space. If this higher rate were used the parking demand estimate for 333 California could be reduced to 815 spaces.

parking spaces. About 55 of the 139 spaces would be allocated to project residents. If all currently proposed projects (including the proposed project) were approved and completed, parking demand could reach 24,700 parking spaces.

This increased parking demand would not be met within a 4-block walking distance of 333 California Street. The increased demand would displace some current drivers and cause a general increase in average walking distance to parked cars for auto commuters to downtown San Francisco. The net effect might be an indeterminant increase in the use of MUNI bus lines as shuttle services to outlying parking lots as well as an increase in transit usage in general.

6. Pedestrian Impacts

The current pedestrian flow conditions fronting the proposed project are shown in Table 17, page 91. Table 18, page 91 explains the pedestrian flow regimes. The proposed project would add about 2,000 pedestrian trips during the p.m. peak hour and 2,600 pedestrian trips during the noon hour. These additional pedestrian flows would cause conditions on the west sidewalk of Battery and east sidewalk of Sansome Streets between California and Pine Streets to deteriorate from "Impeded" to "Constrained" during the p.m. peak hour (see Table 19, page 92). The California Street south sidewalk which is shaded most of the day, is less utilized than sidewalks on Battery and Sansome Streets and the proposed project would not change the existing flow conditions. No pedestrian access is planned for the proposed project on Pine Street.

The proposed project driveways on Sansome and Battery Streets would cause less interference to pedestrian traffic than the existing public parking lot driveways on these 2 streets. Trucks backing into the proposed Pine Street loading docks would interfere with pedestrians on the north sidewalk.

7. Service Vehicle Impacts

The proposed office/residential project would generate approximately 120 truck deliveries per day. An average of 14 deliveries would be made per hour with peak hour deliveries reaching 17 deliveries per hour.

TABLE 17

Current Pedestrian Flow Conditions Fronting the Proposed Project

Location	Effective Width	Noon Hour Peak Flow/min	Noon Hour Regime	PM Peak Hour Peak Flow/min	PM Peak Hour Regime
BATTERY (btwn. California & Pine) west sidewalk	8 ft.	3	Impeded	5	Impeded
SANSOME (btwn. California & Pine) east sidewalk	8 ft.	3.5	Impeded	3.5	Impeded
CALIFORNIA (btwn. Battery & Sansome) south sidewalk	8 ft.	3.3	Impeded	3.5	Impeded

Counts made by DKS on 4 and 11 August 1981 (Tuesday and Friday)

TABLE 18

Pedestrian Flow Regimes

Flow Regime	Walking Speed Choice	Conflicts	Average Flow Rate (P/F/M)
Open	Free Selection	None	0.5
Unimpeded	Some Selection	Minor	0.5- 2
Impeded	Some Selection	High Indirect Interaction	2 - 6
Constrained	Some Restriction	Multiple	6 - 10
Crowded	Restricted	High Probability	10 - 14
Congested	All Reduced	Frequent	14 - 16
Jammed	Shuffle Only	Unavoidable	16 +

*P/F/M - Pedestrians per foot of sidewalk width per minute.
**For Jammed Flow, the attempted flow rate degrades to zero at complete breakdown.

Source: Pushkarev, Boris and Jeffry M. Zupan, Urban Space for Pedestrians, Massachusetts, MIT Press, 1975.

TABLE 19

PROJECTED PEDESTRIAN IMPACTS OF PROPOSED PROJECT

NOON HOUR

LOCATION	1981 P/F/M	Existing Regime	1985 Without Project P/F/M	Regime	1985 With Project P/F/M	Regime
BATTERY (between California and Pine) west sidewalk	3.0	Impeded	3.8	Impeded	5.7	Impeded
SASOME (between California and Pine) east sidewalk	3.5	Impeded	4.0	Impeded	6.2	Constrained
CALIFORNIA (between Sansome and Battery) south sidewalk	3.3	Impeded	3.5	Impeded	4.9	Impeded

PM PEAK HOUR

LOCATION	1981 P/F/M	Existing Regime	1985 Without Project P/F/M	Regime	1985 With Project P/F/M	Regime
BATTERY (between California and Pine) west sidewalk	5.0	Impeded	7.1	Constrained	9.6	Constrained
SASOME (between California and Pine) east sidewalk	3.5	Impeded	4.0	Impeded	7.2	Constrained
CALIFORNIA (between Sansome and Battery) south sidewalk	3.5	Impeded	3.9	Impeded	5.1	Impeded

NOTES:

[1] P/F/M = Pedestrians per foot of sidewalk width per minute.

[2] For definitions of pedestrian flow regimes see Table 18, Page 91.

According to the current City Planning Code, the proposed project must provide 5 truck docks on-site. The Department of City Planning's Guiding Downtown Development document,[1] a set of suggested changes to the planning code, would require 8 truck docks. Calculations based upon the Center City Goods Movement Study[2] and a recent study of the State Compensation Insurance Building at Market and Ninth[3] indicate that 7 to 9 docks should be adequate to serve the peak hour truck deliveries expected at 333 California Street.

The project sponsors propose to provide 4 full-size truck docks (1 dock 55 feet deep, 3 docks 35 feet deep, all docks 11 feet wide with 14 feet vertical clearance) at street level off Pine Street, and 4 van size docks (20 feet deep, 12 feet wide, and 8 feet vertical clearance) in the upper underground level of the garage. Service vehicles using the 4 van docks would enter the garage from Battery Street and exit onto Sansome Street. Freight elevator access would be provided for all docks.

Based upon studies of the State Compensation Insurance Building[3] and The Embarcadero One, Two and Three office buildings[3], it appears that slightly less than half of the service and delivery vehicles are small vans under 7 feet tall. The proposed 333 California building would, on the average, require 4 full size truck docks for the larger trucks. The demand for full-size truck docking space may exceed this level about 3 times a day for about 10 minutes at each occurrence, between the hours of 9 a.m. and 3 p.m. (non-peak hours). When the docks are full, large trucks would park on-street and possibly double-park if no curbside space is available. Some single unit trucks might park on the sidewalks obstructing pedestrian flows.

The 4 van docks in the underground garage of the proposed project would be sufficient to meet the demand for these docks except for a few peak van delivery periods during the day. The 4 van docks would be self-park. About 4 times a day the 4 van docks might all be occupied and additional vans would have to dock in the street level truck docks on Pine Street or double park if no space is available.

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[1] San Francisco Department of City Planning, Guiding Downtown Development, May 1981.

[2] Wilbur Smith Associates, Center City Circulation Program, Goods Movement Study, Working Paper #2, December 1979, San Francisco.

[3] See Appendix D, page A-47 for results of study by DKS Associates, June-August 1981.

The peak periods for van and large truck deliveries do not usually coincide. Thus, a total of 8 docks is sufficient to meet most peak needs for all deliveries to the proposed project. Once a day, for a period of roughly 5 minutes, the demand for docking space at the proposed project might reach a total of 10 docks, based on the State Compensation Insurance Building study.

The proposed 4 full-size truck docks off Pine Street would require trucks to maneuver on-street in order to back into the docks. Backing manuevers into the docks would be difficult because of the narrow (11 feet) width of each dock. The 35-foot deep dock would be set back an additional 10 to 15 feet to partially mitigate this problem. These maneuvers would not generally interfere with peak hour traffic on Pine Street since few deliveries would be made before 8:30 a.m. or after 3:30 p.m. During midday hours, an average of 7 trucks an hour would be expected to back into the Pine Street truck docks. A truck dock supervisor would be available to guide the trucks into the docks and reduce traffic obstructions and pedestrian conflicts. Pedestrian impacts are addressed on page 90.

Golden Gate Transit and MUNI Lines 2, 3, 4, 5, 42, 45, and 76 currently run on Pine Street. MUNI Line Number 42 is the only transit service on the project block in non-peak commute hours. Peak hour transit service should experience few delays caused by trucks backing into the proposed project's Pine Street truck docks since almost all deliveries would be made between 8:30 a.m. and 3:30 p.m. There is no bus stop on this block of Pine Street to be obstructed by maneuvering trucks. When a MUNI number 42 bus run happens to coincide with truck maneuvering at the Pine Street docks, a delay in transit service could occur. Truck maneuvering could also delay vehicles in the 2 right lanes of Pine Street.

The driveways for the proposed Pine Street truck docks would eliminate about 50 feet of curb-side loading zone (two spaces) on Pine Street.

8. Transportation Impacts of Construction

It would require 30 months to construct the proposed project. During this time the parking lanes fronting the project site on Battery and Sansome Streets would be closed. One less lane on each street would be available during the p.m. peak periods. The peak hour level of service in the block is "B/C". The loss of a peak period travel lane on Battery and Sansome Streets in the proposed project block would reduce peak hour capacity on these streets by 20% to 30%.

The demolition of the existing building on-site would take about 60 days. During this phase of construction, it would be necessary to close the parking lanes fronting the project on Pine and California Streets. The Pine Street northerly parking lane is used as a travel lane during the p.m. peak period. The temporary closing of this lane would reduce the capacity of this street and increase congestion. Golden Gate Transit buses would be most affected since they are heavy users of this block. The effect would last for 60 days. Peak hour capacity on Pine Street would be reduced by 15% to 25%.

During the remainder of the construction, it would be necessary to close only the sidewalks on California and Pine Streets fronting the project.

The proposed lane closures would temporarily reduce the available curb side loading spaces on the block and reduce the number of lanes available during the peak hours on Sansome and Battery Streets for the duration of the construction project. Other construction projects on Battery Street (Five Fremont and 353 Sacramento) have closed the east parking lane but have kept the sidewalks open. There are currently no other projects proposed on Sansome or Battery within 4 blocks of the proposed 333 California project. One Sansome construction may affect the west sidewalk of Sansome Street when construction begins.

9. Summary of Transportation Impacts

The completion of all currently approved downtown projects would increase peak hour traffic volumes on city streets by roughly 10% in the C-3-0 District and by 15% to 20% on the areas adjacent to the C-3-0 District. Downtown parking demand would be increased by 11,500 spaces. Peak hour transit ridership would be increased by 25% to 30% on MUNI and the regional transit carriers.

The proposed project would increase peak hour downton traffic by 1% to 2%. Downtown parking demand would be increased by 721 parking spaces. Peak hour transit ridership would be increased by 1% to 3% on MUNI and regional transit carriers.

The approval and completion of all currently proposed and approved downtown projects would increase peak period traffic volumes by 30% to 35% at the approaches to the Bay Bridge. Peak period transit ridership from downtown San Francisco would be increased 50% to 60% over current levels. Downtown parking demand would be increased by 25,000 spaces.

The freeways, freeway ramps and major street accessing the freeways would experience substantial increases in traffic congestion. Vehicle queues would increase and peak hour flow conditions would probably extend throughout the 3 - 6 p.m. period.

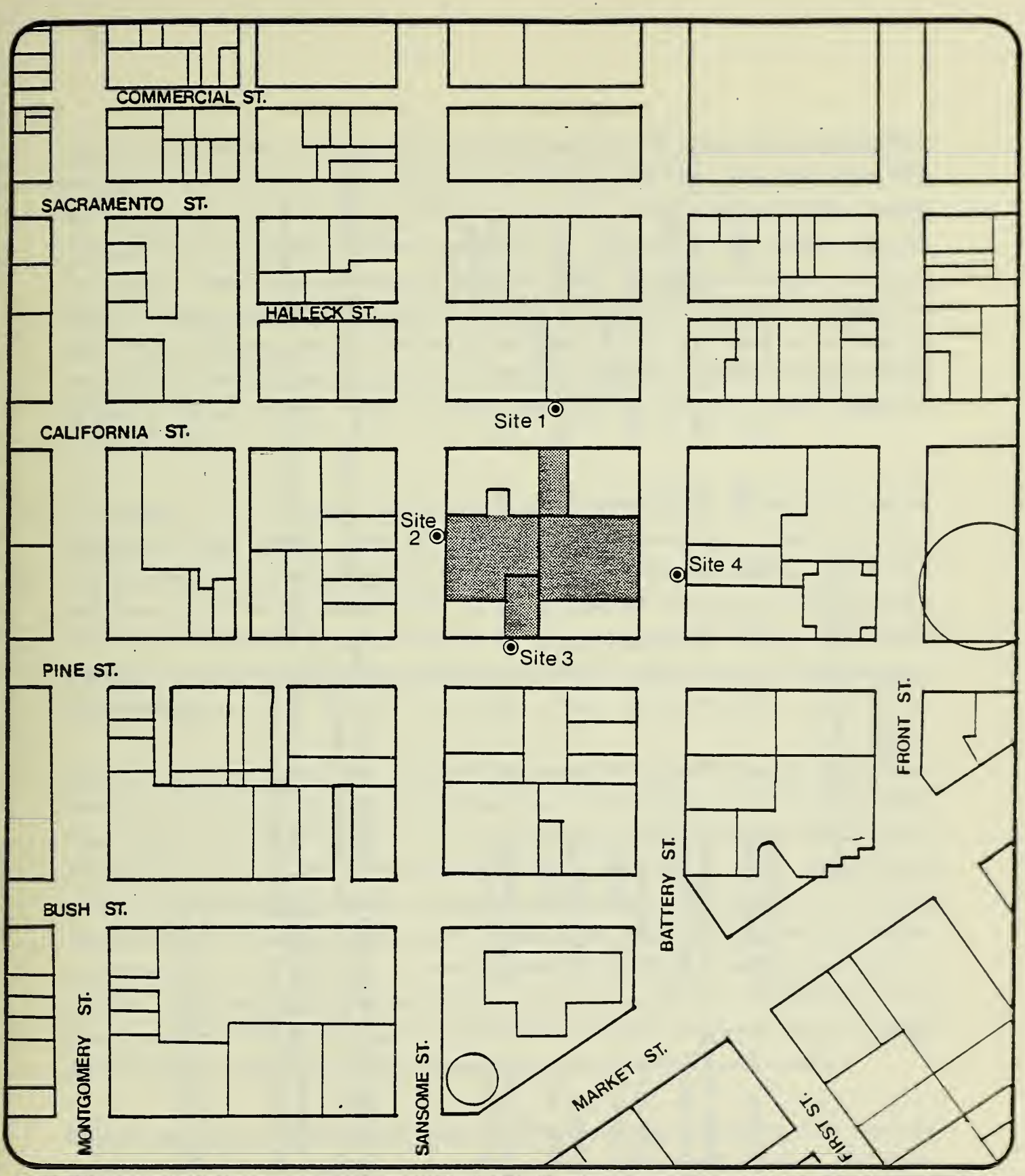
All of the transit carriers would be at or over capacity. Passenger loads would be greater on MUNI than on other carriers. Peak hour buses and trains would be crowded with uncomfortable conditions for all passengers. Vehicles would probably be crowded to the extent that buses would pass up waiting passengers and trains would be unable to admit passengers waiting at platforms. The peak hour congestion would be extended to 2-3 hours.

Parking facilities would be directly affected by cumulative growth. Parking impacts would relate to the inconvenience for downtown employees and visitors forced to park farther from their destinations. A secondary effect would be the increased parking and traffic in neighborhoods removed frm the downtown area. Some motorists might seek parking (both curb and off-street) in peripheral areas and ride MUNI to/from downtown. This parking demand would remove spaces from local residences/businesses. It is also possible that parking inconvenience could cause some commuters and/or visitors to shift to an alternate transportation mode. Some persons might elect to join carpools/van pools or might use public transit.

In summary, the transportation analysis suggests that cumulative downtown development would have major consequences. The magnitude of the impacts would require significant increases in the system capacity and/or changes in travel habits (i.e. van pool usage, work hour changes, etc.).

G. NOISE

The site is currently exposed to noise generated by traffic on Sansome, California, Battery and Pine Streets. To determine typical daytime noise levels in the vicinity of the project, noise measurements were made on Monday, 14 September 1981, at the four locations shown on Figure 29, page 97. Noise measurements at each location were made at the typical building setback at each street. Noise levels along each street are similar and range from an Leq of 68 dBA on Sansome Street to an Leq of 70 dBA on Battery Street (see Appendix F, page A-73, for a discussion of the terminology and fundamental concepts of environmental noise). The data obtained during the noise measurement survey are shown in Table 20, page 98. In terms of the adjacent land uses' sensitivity to



Noise Measurement Locations

North

0 100 200 400

Scale Feet

SOURCE: Charles Salter Associates/EIP

Figure No. 29

TABLE 20

NOISE MEASUREMENT RESULTS

Site	Location	Day and Time of Measurement	L_1*	L_{10}	L_{33}	L_{50}	L_{90}	L_{99}	L_{eq}**	Comments
1	350 California Street 15 feet from curb	9/14/81 Monday 2:12 - 2:27 pm	75	71	68	67	65	64	68	65 cars, 1 cable car, 1 bus
2	232 Sansome Street 16 feet from curb	9/14/81 Monday 2:31 - 2:46 pm	73	69	67	66	63	62	67 2 buses	75 cars,
3	244 Pine Street 16 feet from curb	9/14/81 Monday 2:50 - 3:05 pm	78	72	69	68	64	48	69 2 buses	35 cars,
4	230 Battery Street 14 feet from curb	9/14/81 Monday 3:09 - 3:24 pm	78	73	70	69	66	65	70	105 cars, 2 trucks 1 bus

* The sound level in dBA that was equaled or exceeded 1% of the time; L_{10}, L_{33}, L_{50}, L_{90}, and L_{99} are the levels equaled or exceeded 10, 33, 50, 90, and 99 percent of the time, respectively.

**The L_{eq} is the equivalent steady-state sound level that, in a stated period of time, would contain the same acoustic energy as the time-varying sound level during the same time period.

Source: Charles M. Salter Associates, Inc.

construction noise, the L1 levels (the noise level exceeded 1% of the time), representing the typical loudest events in the area, are of particular interest. The data show that buildings in this area are typically exposed to maximum levels of about 78 dBA. Inside buildings with open windows, maximum levels would be expected to reach 63 dBA and with the windows closed would be expected to reach 58 dBA. Inside the buildings with fixed windows, noise levels would be expected to reach a maximum of 48 dBA. It should be noted that, although many of the office buildings in this area have no mechanical ventilations systems, these windows are almost always closed. Because closed operable windows leak noise more than do fixed windows, they provide a lower degree of acoustical isolation.

Construction of the proposed project would take approximately 2½ years and would encompass 4 basic phases: demolition (about 5 months), foundation excavation (about 4 months), foundation construction and building erection (about 21 months). Due to the preliminary nature of the project plans, it is not known at this time what construction techniques or equipment would be used during the various phases. In order to estimate possible construction noise impacts, this analysis assumes typical equipment and construction techniques.

Based on annoyance and activity interference criteria, office workers can be expected to respond to construction noise in the following way. If the maximum level of construction noise during a particular phase is below 60 dBA, no interference would be expected, although some may be annoyed and occasionally distracted by the noise. Noise levels between 60 and 70 dBA would be annoying and distracting, would interefere with relaxed conversation, but would not interfere with the use of the telephone. Concentration would be difficult but not impossible. At levels between 70 and 80 dBA, workers would find it difficult to concentrate, relaxed conversation would be impossible, conversations on the phone would be difficult, and worker dissatisfaction could be expected. At noise levels above 80 dBA, it would be essentially impossible to carry on normal work routine.

Because the site is located on bay mud, it is anticipated that foundation piles would be required and that impact pile drivers would be used for a period of 6-8 weeks. This is the single noisiest piece of equipment that would be used during construction. Pile drivers, measured by Charles M. Salter Associates in September of 1981 in downtown San Francisco, emit levels of about 105 dBA at a distance of 50 feet. Due to the proximity of the existing buildings, pile driving could take place within 25 feet of existing offices.

Noise levels inside these offices would reach 91 dBA in the lower floors. Noise levels in the upper floors would be approximately 10 dBA lower (an interior level of 81 dBA) due to the increased distance between these offices and pile driving. It would be essentially impossible for these offices to carry on a normal work routine. These noise levels would exist only inside rooms facing directly on the project site. Offices with exterior windows not facing on the project site would be exposed to noise levels 20-30 dBA lower than this (e.g. 61-71 dBA). Office buildings not on the project site block but on the opposite side of Sansome, Battery, Pine and California Streets would be exposed to noise levels of 95-100 dBA outside. Inside the buildings with operable windows noise levels as high as 80 dBA could be expected and inside the buildings with fixed windows noise levels of up to 70 dBA could be expected. In offices with fixed windows pile driving noise would be distracting, would interefere with relaxed conversation, but would not interfere with telephone use. In offices with operable windows it would be difficult to concentrate, relaxed conversation would be impossible, telephone conversation would be difficult and worker dissatisfaction could be expected.

Demolition would probably require the use of jackhammers and rubble would be loaded into trucks with front end loaders and hauled away. Jackhammers typically emit levels of 88 dBA at a distance of 50 feet. Front end loaders and trucks emit levels of 80-90 dBA at a distance of 50 feet. In the offices overlooking the buildings to be demolished, noise levels inside could be expected to reach 70-75 dBA when jackhammers were being used. It would be difficult to work in this noise environment. Telephone conversations would be difficult, conversation would be impossible in a relaxed tone of voice and annoyance and distraction would be expected. When jackhammers were not being used, the noisiest source would be the loading of trucks at ground level. In offices overlooking the site, maximum noise levels would reach 65-70 dBA when the front loaders were operating under full load. The noise of this activity would be annoying and would occasionally interfere with office activities.

During excavation, scrapers, loaders and trucks would be used. These pieces of equipment, if adequately muffled, emit levels of 80-85 dBA at a distance of 50 feet. During this activity, noise levels inside adjacent offices would reach 70 dBA and the impacts would be the same as those described for rubble removal.

During building erection, the noisiest single activity would be the use of impact wrenches to fasten metal decking to the steel frame of the building. Impact wrenches emit about

95 dBA at a distance of 50 feet. During the times that these wrenches would be used (sporadically over a period of about 2 months), noise levels would be expected to range from 70-80 dBA in the nearest offices. Other activities would range in noise emission from 60-80 at a distance of 50 feet.

During the use of impact wrenches, concentration would be difficult, relaxed conversation would be impossible, telephone conversations would be difficult and workers would be annoyed and distracted. During the remainder of the construction process, maximum noise levels of up to 60 dBA would be expected inside adjacent offices. These levels would be audible and occasionally annoying but would not interfere with office activities.

Construction noise in the City and County of San Francisco is controlled by Ordinance 274-72, Regulation of Noise, Section 2907. The Ordinance requires that all powered construction equipment, except impact tools and equipment, emit not more than 80 dBA measured at 100 feet (86 dBA at 50 feet). Impact tools and equipment including pavement breakers, jackhammers, and pile drivers must have both intake and exhaust breakers; jackhammers and pile drivers must have both intake and exhaust muffled to the satisfaction of the Director of Public Works. The Ordinance further requires a special permit for construction after 8 p.m. and before 7 a.m.

To summarize, the greatest noise impacts of construction would occur during 10 weeks of pile driving and the 2 months of demolition. There would also be an approximate 2-month period of impact during the use of impact wrenches.

H. AIR QUALITY AND CLIMATE

1. Air Quality

The potential air quality impacts of the proposed project are:

- local and regional effects of increased vehicular traffic
- local and regional effects of emissions due to on-site combustion of natural gas
- short-term local impacts of construction

Local impacts result from exposure of curbside locations to vehicular emissions of carbon monoxide (CO), oxides of nitrogen (NO_x), and hydrocarbons (HC). Particulates are not generally a problem at this scale. Regional impacts are generally due to increases in the

quantities of ozone precursors; i.e., HC and NO_x. Studies of future air quality[1] indicate that photochemical ozone would be a problem, and that reductions in the HC and NO_x emissions would be necessary to obtain compliance with the federal standard for ozone. Construction impacts at the local level are due to resuspended dust and emissions from motorized equipment.

Local Impacts. Local impacts occur as a result of elevated CO concentrations on congested streets. The traffic analysis of the proposed project indicates that increases in traffic volumes could be anticipated in 1985 at 5 of the 6 intersections studied (i.e. those intersections that have the greatest potential for air quality impacts). There would be no current or future violations of the 1-hour average CO standard of 35 ppm; in each case 1985 concentrations are expected to be lower than existing concentrations due to decreases in vehicular emissions rates (Table 21, page 103).[2] Concentrations predicted for 1985 are the same whether the project were constructed or not (Table 21, page 103).

Although violations of the 8-hour average standard of 9 ppm are estimated to occur at each of the 6 critical locations at present, they would be eliminated as a result of declining vehicular emission rates (Table 22, page 104).

Regional Impacts. Regional impacts of the proposed project would be due to increases in vehicular traffic and to a lesser extent to on-site combustion of natural gas. Total project-generated emissions for 1985 have been estimated (Table 23, page 105). Project generated emissions would be less than 0.03% of regional total emissions. Although there would be an impact on air quality it would not result in a measurable increase in pollutant concentrations.

The 1979 Bay Area Air Quality Plan[3] indicates that ozone would continue to be a future regional problem and suggests that pollution control strategies would be needed to attain

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[1] Association of Bay Area Governments, 1979 Bay Area Air Quality Plan, January 1979.

[2] The Federal Ambient Air Quality Standards for carbon monoxide of 9 ppm for 8 hour average and 35 ppm for a 1 hour average are set for the protection of public health and welfare with an adequate margin of safety. "Air Quality Criteria for Carbon Monoxide", U.S. Department of Health, Education and Welfare, Public Health Service, National Air Pollution Control Administration, Washington, D.C., March 1970). This assumes that the Federal Clean Air Act requirements will not be relaxed.

[3] Association of Bay Area Governments, 1979 Bay Area Air Quality Plan, January 1979.

TABLE 21

PEAK HOUR CARBON MONOXIDE CONCENTRATIONS
AT CRITICAL INTERSECTIONS (ppm)

	Existing	1985 w/o Project	1985 w/Project
Battery and Clay	27.	20.	20.
Battery and Pine	22.	17.	17.
Market and First	25.	19.	19.
Mission and First	25.	19.	19.
Mission and Beale	22.	20.	20.
Sansome and California	25.	16.	16.

1 hour average standard is 35 ppm

Future projections include impacts due to cumulative development in Downtown San Francisco (all projects currently proposed, approved by the City and/or under construction).

1981 Background was assumed to be 13.4 ppm. 1985 Background was assumed to be 9.6 ppm.

These figures are based on second highest concentrations (since air quality standards are written in terms of second highest values) measured in San Francisco at 939 Ellis Street in 1978 and 1979, and at 900 23rd Street in 1980 (14.4 pm 1-hour; 8.3 ppm 8-hour), and adjusted for future years proportional to expected reductions in CO emissions rates.

TABLE 22

PEAK 8-HOUR AVERAGE CARBON MONOXIDE CONCENTRATIONS
AT CRITICAL INTERSECTIONS (ppm)

	Existing	1985 w/o Project	1985 w/Project
Battery and Clay	11.	8.	8.
Battery and Pine	10.	7.	7.
Market and First	10.	7.	8.
Mission and First	11.	8.	8.
Mission and Beale	10.	8.	8.
Sansome and California	10.	7.	7.

8 hour average standard is 35 ppm

Future projections include impacts due to cumulative development in Downtown San Francisco.

1981 Background was assumed to be 7.8 ppm.
1985 Background was assumed to be 5.6 ppm.

These figures are based on second highest concentrations measured from 1978-1980 (14.4 ppm 1-hour; 8.3 ppm 8-hour), and adjusted for future years proportional to expected reductions in CO emissions rates.

TABLE 23

ESTIMATED PROJECT GENERATED EMISSIONS BY TYPE (Tons/Day)

	Vehicles[1]	Natural Gas Use[2]	Total Proj. Emissions	1985 Total Reg Emissions[3]	% 1985 Total Reg Emissions Due to Proj.
Carbon Monoxide	1.30	0.0055	1.30	3,880	0.03
Hydrocarbons	0.080	0.00022	0.080	840	0.01
Nitrogen Oxides	0.126	0.0033	0.129	700	0.02
Sulfur Oxides	0.013	0.00002	0.013	390	0.003
Particulates	0.021	0.0003	0.021	190	0.01

[1] Assumes an average trip length of 15 miles; 3,800 auto trips per day.

[2] Based on emission factors in Compliance of Emission Factors (2nd ed.), AP-42 USEPA RTP N.C. 27711, February 1976.

[3] ABAG 1979 Bay Area Air Quality Plan.

Proj. = Project

Reg. = Regional

compliance with standards. Combined with cumulative downtown development the project would add to local and regional accumulations of pollutant emissions. While the proposed project would not be in direct conflict with the strategies of the Air Quality Plan, the objective of the plan would be impeded by additional emissions.

Construction. Demolition, earthmoving and construction activities could increase particulate concentrations in adjacent areas. Additionally, emissions from motorized equipment on the site that include CO, NO_x, and HC would be a temporary contributor to elevated concentrations of these pollutants although no measurable impact is expected. Data upon which to base estimates of the quantity of particulate matter or vehicle emissions from these sources are unavailable.

2. Climate

Windspeeds and frequencies are highest in the summer when northwest winds blow 12% to 39% of the time. These exceed 13 miles per hour (mph) 35% of the time and 25 mph 3% of the time. West winds blow 15% to 40% of the time, exceeding 13 mph 29% of the time and 25 mph 7% of the time. Wind tunnel tests of windspeed ratio[1] and direction at the project site were conducted. The study included investigation of existing conditions and simulation tests of conditions after construction of the proposed project (Figure A-4, page A-38).

Wind tunnel tests of scale models were conducted for the existing site and, the proposed project for the 2 most frequent wind directions in San Francisco. The existing site was found to have low to moderate windspeed ratios for the northwesterly wind direction.[2] For westerly winds windspeed ratios ranged from moderately low to high.

The project would result in a mixed pattern of windspeed ratio increases and decreases. In northwest winds, the windspeed ratio on the west side of Sansome would decrease from moderate to moderately low; at the north side of the Battery Street frontage of the site

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[1] Persons unfamiliar with wind tunnel testing and windspeed ratios are referred to Appendix E, Microclimate Impact Study, page A-61.

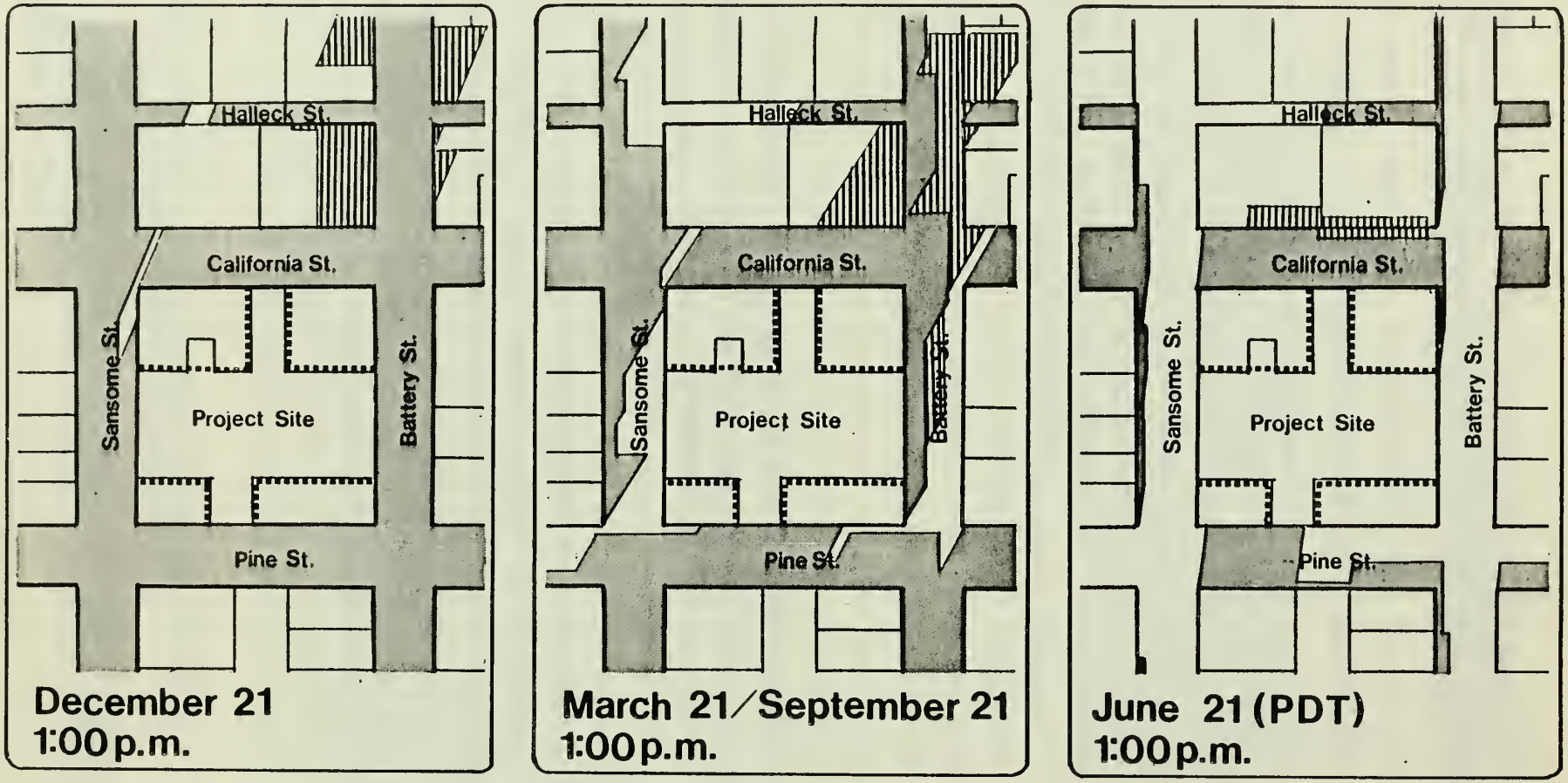
[2] Low to moderate refers to 0 to 0.49 percent of calibration windspeed. Moderately low to high refers to 0.29 to 1.00 percent of calibration windspeed. These values are not actual windspeeds, but ratios.

the windspeed ratio would increase from moderately low to moderate; and the windspeed ratio would reach a moderately high peak in part of the California Street entry to the site.

In westerly winds, windspeed ratios along the east (project) side of Sansome would decrease from a range of moderate - high to moderately low - moderately high, with a 25% decrease at the point where the highest windspeed now occurs. Along Battery Street, at the northwest corner of Battery and California the windspeed ratio would increase, staying moderate; mid-block between California and Pine the ratio would decrease from moderate to moderately low, as would the northern corner of the west side of the street. Along Pine Street, the windspeed ratio at the southeast corner of Pine and Sansome would increase from moderate to moderately high; and most of the north side of the project block would decrease from moderate to moderately low. The wind speed ratios would not be uncomfortable (i.e. hats would not be blown off heads, coats would not be ruffled) to pedestrians.

3. Sunlight and Shadow

Existing and new shadow patterns for 1:00 p.m., on 21 March, June and December are shown in Figure 30, page 108. Appendix E, pages A-70 and A-71 also contains shadow patterns for 8:00 a.m. and 4 p.m. for the same dates. The project would cast new shadows on the 351 and 311 California Buildings and from May-June would shade the sidewalk on the east side of California across from the project at 1 p.m. During March and September a portion of Sansome Y reet would receive new shadows from the project at 8 a.m. Most of the shadows would fall in areas shadowed by existing development and would not increase the shadowed area. During the early morning at all seasons of the year, California Street, Sansome Street, Battery Street and Pine Street are shaded by existing structures. The buildings on California, Sansome and Battery Streets would block the early morning and late afternoon shadows from the project on buildings several blocks away.



North

0 50 100 200

Scale Feet

Figure No. 30

Shadow Patterns

Existing Shadow

Shadows caused by Proposed Project

SOURCE: EIP Corp.

I. ENERGY

Energy is consumed on the project site by the 333 California Building, the 141 Battery Building and the 244 Pine Building. Estimated electrical consumption is 0.8 billion BTUs per month, and estimated natural gas consumption is 0.7 billion BTUs per month.[1]

Implementation of the proposed project would lead to energy consumption for 4 primary purposes: construction, operation and maintenance, project-generated traffic.

Construction. Based upon a construction cost of $80 million (1981) dollars, it is estimated that project construction would consume 160 billion BTU[2] of energy in the form of gasoline diesel fuel, electricity and lubricants.[3] This is the equivalent of 29,000 barrels of oil.[4]

Operation. Electrical and fossil fuel energy consumption has been calculated for the non-residential area of the building by the Trace 400 computer program in compliance with the California Energy Standards for new non-residential buildings and the result is applied to the residential area in accordance with Paragraph T20-1470(c) of the Standards, except

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[1] The calculation is based on 1.41×10^5 BTU/square foot/year for gas consumption and 8 kwh/square foot/year for electrical consumption, assuming a total of 132,000 square feet of office space for the 3 buildings. California Energy Commission Conservation Division, Regulations Establishing Energy Conservation Standards for New Non-Residential Buildings as amended 26 July 1978, Sacramento, CA 1978, 5.1.1.

[2] BTU (British Thermal Unit): A standard unit for measuring heat. Technically, it is the quantity of heat required to raise the temperature of one pound of water 1° Fahrenheit (251.97 calories) at sea level.

[3] Energy cost of construction was assumed to be 2,000 BTUs per 1981 dollars in accordance with information contained in Tetra Tech, Inc., Part I. Analytical Approach Energy Use in the Contract Construction Industry, Appendix A, Study methodology, Springfield, VA, NTIS, 18 February 1975.

[4] Energy Conversion factors:
1 gallon gasoline = 125,000 BTU
1 gallon diesel = 140,000 BTU
1 gallon lubricating oil = 145,000 BTU
1 kwh = 10,200 BTU assuming operational efficiency of 33 % for fossil or nuclear fueled power plant.

that the lighting and appliance energy consumption in the residential area is computed in accordance with the California Energy Commission,[1] Project Report #7.

The assumptions used by the TRACE 400 program include: a lighting load of 2.5 watts per square foot for office areas and 1 watt per square foot for residential and non-airconditioned areas, fluorescent lights with individual light switching (as per Title 24)[2], variable air volume, air conditioning, outside air/return air economizer cycle, carbon monoxide level controlled variable air volume garage ventilation.

a. Electricity. The project's estimated average monthly electrical consumption would be 887,000 kilowatt hours (kwh), equivalent to 1.43 kwh per square foot of interior area per month. This is equivalent to 9.1 billion BTU per month assuming fossil or nuclear fuels or approximately 5.6 billion BTU per month of fossil and nuclear fuels assuming 38% hydroelectric and geothermal power and neglecting small quantities of fossil fuels used in hydroelectric and geothermal power generations.[3] This consumption rate may be compared with those of recently approved projects at 333, 595, and 444 Market Street with predicted consumption rates of 1.4, 2.5 and 1.8 kwh per square foot per month, respectively.

Peak electrical use would occur betwen the hours of 11 a.m. and noon on August weekdays due to the demand for ventilation, cooking, lighting and elevator operation. The peak at-source consumption would be approximately 45 million BTU at this time. At 4 p.m. on hot August weekdays, when PG&E system wide use is at a maximum, the peak project demand at source would be 42 million BTU. This quantity would increase PG&E's peak system-wide demand.

Daily and annual load distribution curves are shown in Figure 31, page 111. The project's estimated connected load is 7,900 kilowatts (kw).

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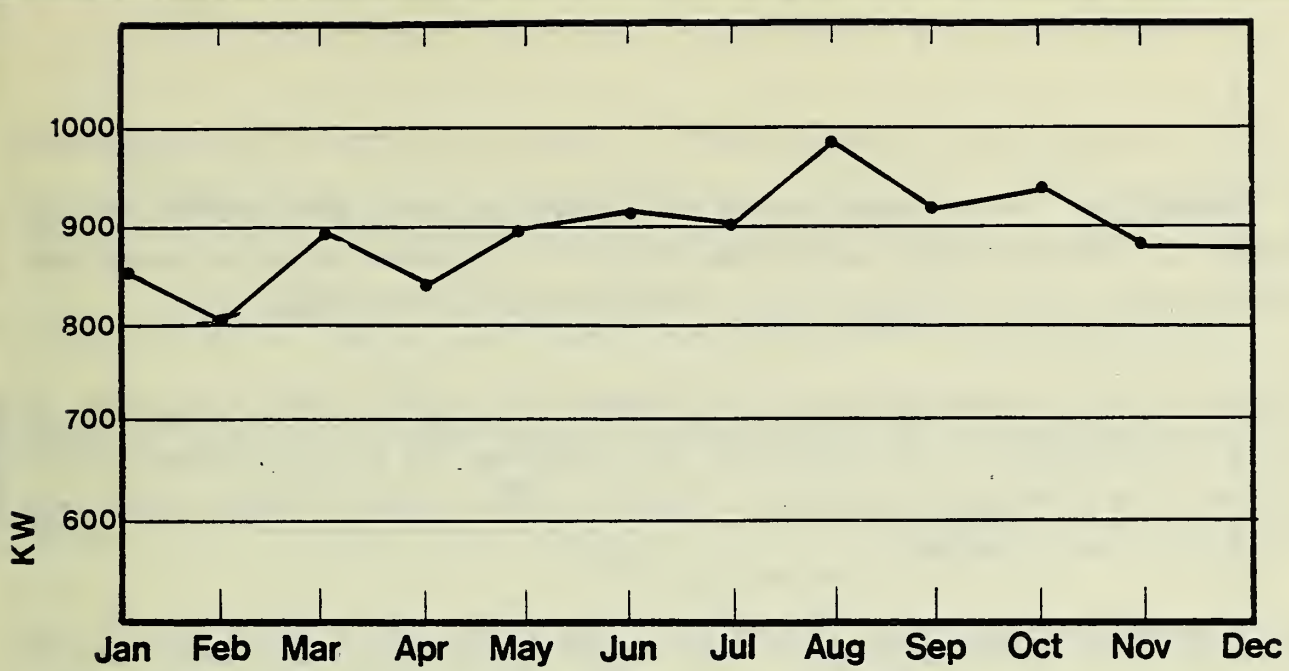
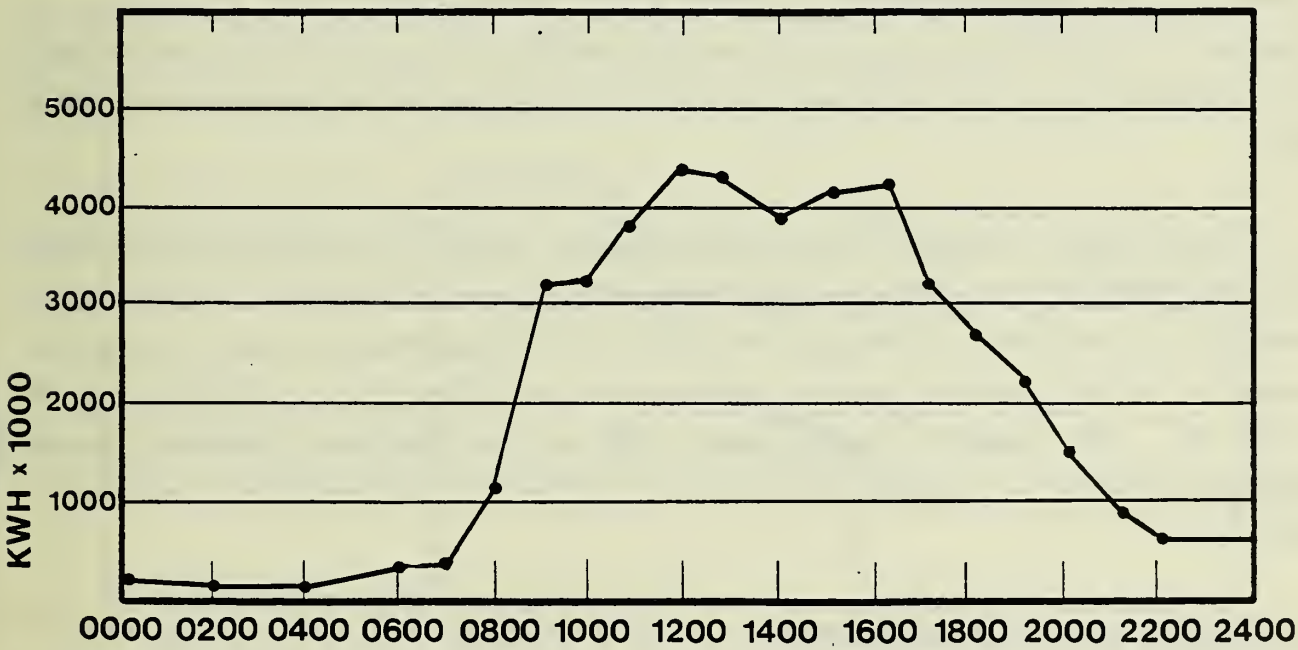
[1] California Energy Commission, Project Report #7, June 1980.

[2] Calfiornia Energy Commission Conservation Division, Regulations Establishing Energy Conservation Standards for New Non-Residential Buildings as amended 26 July 1978, Sacramento, CA 1978, 5.1.1.

[3] Pacific Gas and Electric, Annual Report to Stockholders, San Francisco, CA, 1980.



Monthly Consumption



Hourly Consumption

Estimated Electrical Load Distribution

SOURCE: EIP Corp.

Figure No. 31

b. Natural Gas. The estimated average daily natural gas consumption for the proposed project is 23 BTU per square foot of floor space. The magnitude of the estimated peak natural gas demand for the project is 8.7 million BTU per hour (590 therms/day).

Peak demand for natural gas would occur between the hours of 7:30 a.m. and noon on January weekdays due to the demand for space heating. The at source demand at this time would be 8.8 million BTU per hour. This does not coincide with PG&E's system peak at 6-9 p.m. January evenings.

Daily and annual load distribution curves for natural gas are given in Figure 32, page 113. The project's average monthly gas consumption would be 350 million BTU.

The total annual energy use for all purposes, obtained by adding the annual gas and electricity use figures would be 113 billion BTU. The proposed project is predicted to consume 112,000 BTU's per square foot per year, which is 112 less than the allowable limit of 126,000 BTU's per square foot per year and would therefore be in compliance with Title 24.

c. Transportation. Based on an estimated annual increase in regional vehicle miles travelled (VMT) of 10.6 million resulting from project generated traffic, and assuming an average auto efficiency of 20 mpg, the annual auto transportation energy consumption would be 530,000 gallons of gasoline, equivalent to 66 billion BTU or 12,000 barrels of crude oil. This would be approximately 50% of the structure's estimated annual operational energy use. Energy use for bus, rail and ferry transit would be in addition to this figure.

J. CUMULATIVE PUBLIC SERVICES

The San Francisco Police Department[1] indicates that increased construction in the downtown area could result in an increase in burglary and petty theft due to the resulting increase in downtown office population and property value. The Central District Police Station indicates that it would not require additional personnel or equipment to serve the proposed project.[1]

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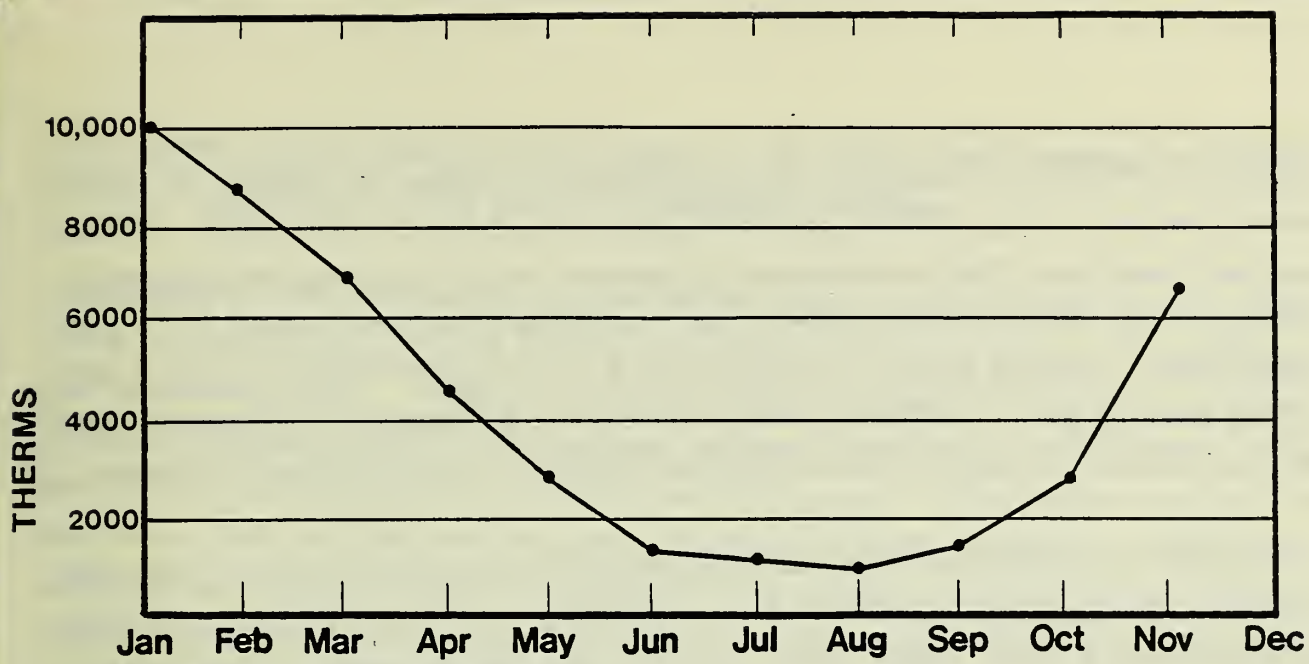
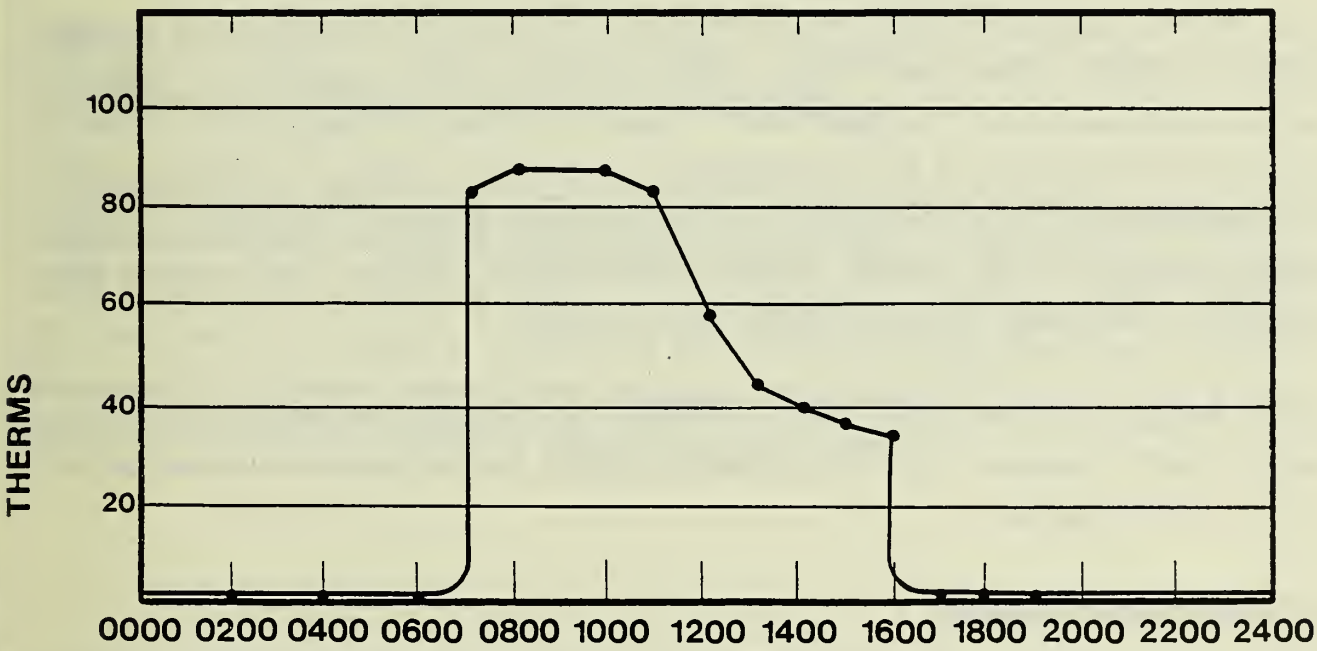
[1] Victor Macia, Captain, Central Station, San Francisco Police Department, telephone conversation, 30 June 1981.



Monthly Consumption



Hourly Consumption

Estimated Gas Load Distribution

SOURCE: EIP Corp.

Figure No. 32

Cumulative downtown development would eventually increase the demand for police services because of the resulting additional population, property and traffic. Because most new downtown office developments incorporate security systems and personnel in their plans, they typically require fewer public police services than do older but similar developments. Internal security arranagements in the proposed building would include building security staff. Additional street activity due to increased development could decrease incidence of crime related to empty streets, such as violent sidewalk robberies.

San Francisco is experiencing accelerated development in the downtown area.[1] Approved cumulative development, consisting mostly of highrise commercial office structures, would add about 9 million square feet of gross floor area to the downtown area (including the proposed project). It can be anticipated that the number of fire incidents would increase with the number of people occupying the district.

Since the new highrise buildings must comply with the Life Safety provisions of the San Francisco Building Code, most fires in these buildings can be expected to yield to minimum response by the Fire Department. Since all of these buildings will be of Type I construction[2], the chance of fire that spreads from building to building is relatively small. For example, when the old and highly combustible Produce Market was replaced by the highrise buildings of the Golden Gateway Redevelopment Project, the external fire protection requirements of the fire Department decreased.

On the average, replacing older, more vulnerable, low occupancy structures with higher quality, greater occupancy high-rise buildings probably has no measurable effect on the need for fire protection.

K. GROWTH INDUCEMENT

The proposed project would add 542,200 square feet of leasable office space, 18,500 square feet of retail space, and a maximum of 293 housing units (up to 55 units on-site and

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[1] Bendix Environmental Research, Inc., Environmental Consultants and Fire Protection Engineers, confirmed by Emmet D. Condon, Deputy Chief, San Francisco Fire Department, September 24, 1981.

[2] Type I buildings have structural elements made of reinforced concrete, reinforced grouted masonry, reinforced hollow concrete masonry or steel; and the exterior walls, roofs, floors and some inner walls of "fire-resistive incombustible construction," San Francisco Building Code Section 1801.

238 moderate income off-site) to San Francisco. The project would represent an addition of about 1% to the total office space in downtown San Francisco.

Approximately 2,700 permanent jobs would be created at the project site, including 2,400 office jobs and 300 jobs in retail sales, janitorial and building security, and in service for the residential units. Another 2,640 jobs could be created through the indirect employment effects of the 2,240 employee increase in jobs on-site, with most of these jobs likely to be located in San Francisco (see IV.E, page 66, Employment Impacts). A total of as many as 4,480 new jobs could be created through the project. The project would remove buildings on site that currently employ 460 personnel. The net employment-inducing effect of the project could be estimated at approximately 2,200 directly and 2,300 indirectly-induced jobs, or a total of about 4,500 jobs. The project may result in a demand for 257 to 532 housing units to accommodate households moving to San Francisco.

The project would be located in an already developed area and require no new construction or extension of public service or utility systems.

The project would continue the trend of intensifying office use in the downtown area. Together with other new office development near the site, it could stimulate further office growth in the immediate vicinity on lots occupied by lower-rise office buildings. The introduction of residential units to the area could encourage other new mixed-use develoments. Purchasing power of the employees and residents of the site would tend to stimulate new retail development in the proposed project area.

V. MITIGATION[1]

A. VISUAL QUALITY AND URBAN DESIGN

MEASURES UNDER CONSIDERATION BY THE PROJECT SPONSOR

Mitigating the appearance and scale of the building walls defining the pedestrian access extending from California Street could include a variety of approaches. The appearance of the building walls up to 20 to 30 feet in height would be important because the access way would be no wider than about 40 feet, tending to confine visual focus to lower levels.

MITIGATION MEASURES WOULD INCLUDE:

- painting or otherwise applying a false building face to the exposed walls between 351 and 311 California Street;
- introducing human scale elements such as trees, shrubs, decorative plant materials, lighting, trellises, benches and other street furniture;

The project sponsor has not determined which of the above mitigation measures, if any, would be implemented and would wait until demolition and construction of the building is completed.[2] It is proposed, however, that surface ornamentation of the building walls facing California Street be constructed to continue around the building corners at the edge of the walkway to improve the image of the existing structures when viewed from California Street.

Surface texture, and detail would be included in the project design at street and tower levels to enhance the visual interest of the project, break up large, uniform surfaces, and complement the scale and texture of nearby buildings. Final design plans for the exterior portion of the building are in process. Actual texture and detail would be decided by project architects and the project sponsor if the project were approved by the City.

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[1] Any mitigation mesaure rejected or under consideration by the project sponsor could be required by the City as a condition of approval.

[2] The 2 corner buildings on California Street are not owned by the project sponsor. Actual treatment of the walls facing the entrance to 333 California is to be determined after demolition of 333 California and construction of the new building. The terms of the sale of 311 and 351 California Street stipulated that treatment of the walls and the plaza would be done jointly by the owners of the buildings and the project sponsor.

Construction barriers would be painted and decorated, subject to review by the Planning Department, to provide visual interest. The barriers are the responsibility of the company performing the demolition, excavation and construction of the building. The types of barriers have not been determined. The decision would be made by the project sponsor at the time of project approval.

MEASURES REJECTED BY THE PROJECT SPONSOR

The interruption of the line of structures along Pine Street by the proposed loading dock could be mitigated by moving the loading dock from street level and placing it beneath the structure, or by introducing an architectural (constructed) visual screen which would continue the line of facades on Pine Street as well as screen the loading dock. The project sponsor has elected to keep 4 dock spaces external to the building to provide adequate circulation in the 2 basement parking levels (see VII. Alternatives, page 141).

B. HISTORICAL AND CULTURAL RESOURCES

MEASURES PROPOSED AS PART OF THE PROJECT

Should evidence of historic or prehistoric artifacts be uncovered at the site during construction, the project sponsor would: 1) notify the Environmental Review Officer and the President of the Landmarks Preservation Advisory Board; 2) require the contractor to suspend construction in the area of the discovery for a maximum of four weeks to permit review of the find, and, if appropriate, retrieval of artifacts; 3) pay for an archaeologist, historian, or other expert acceptable to the Environmental Review Officer to help review the find, determine the significance and identify feasible measures, if any, to preserve or recover artifacts; and 4) implement feasible mitigation measures identified in the course of investigation.

C. EMPLOYMENT

MEASURES PROPOSED AS PART OF THE PROJECT

Tenants with long term leases in the buildings planned for demolition would be provided with financial assistance to relocate by the project sponsor.

All tenants would be eligible for free advisory relocation assistance by the project sponsor which would include identification of rentable space in San Francisco, current rates, and reference to leasing agents, brokers and moving firms.

D. HOUSING

According to the formula contained in the Memorandum, 'Housing Requirement for Office Development in San Francisco' (Dean Macris, Director, Department of City Planning, July 1, 1981), the project would generate a demand for about 532 housing units in San Francisco. The Planning Commission could require the project sponsor to satisfy the housing demand by development of on- or off-site housing, or by other means such as contributions to a non-profit housing development corporation.

MEASURES PROPOSED AS PART OF THE PROJECT

The project sponsor has given funds to rehabilitate 238 low and moderate income units of housing owned by the City Housing Authority. The proposed project would contain 55 units on site.

MEASURES ACCEPTED BY THE PROJECT SPONSOR

The project sponsor would cause to be provided the balance of 239 units in San Francisco off the project site.

E. TRANSPORTATION, CIRCULATION AND PARKING

MEASURES PROPOSED AS PART OF THE PROJECT

The project sponsor would provide off-street parking for construction workers on the project site or at an off-site location with jitney service to the site.

The general construction contracts would provide that no construction traffic enter or leave the project site before 9 a.m. or after 4 p.m. to minimize conflicts with peak-hour traffic. The project sponsor would ensure that safe and convenient pedestrian access be maintained throughout the construction period on designated walkways around the project site.

The project sponsor and construction contractor would meet with the Traffic Engineering Division of the City's Department of Public Works and with the Office of Environmental Review to determine other feasible construction traffic mitigation measures satisfactory to all parties.

Project contractors would insure that paving, landscaping and structures in the sidewalk area would be placed (subject to City approval) so as to minimize interference with pedestrian traffic.

A bell and lighted sign would be installed to alert pedestrians of outbound vehicles at the parking garage driveway on Sansome Street.

Transit use by employees would be encouraged by the sale of on-site Muni Fast Passes and BART passes.

To reduce the necessity for curbside parking for delivery vehicles, 5 van-sized docks would be provided in the subsurface parking area in addition to the 4 truck docks at street level (5 truck docks are required and the project seeks an exception to the code under a conditional use). A freight elevator would be provided in proximity to the loading docks to reduce conflicts between pedestrian flow and the movement of goods.

During peak period hours for pedestrian traffic, including lunch hour, a flagman would be stationed at the Pine Street loading docks to control truck dockings and divert small vans to underground van docks.

The project sponsor recognizes the need for expanded transportation services to meet the peak demand generated by cumulative office development in downtown San Francisco to which this project would add; therefore, the project sponsor would contribute funds for maintaining and augmenting transportation service, in an amount proportionate to the demand created by the project, through a funding mechanism to be developed by the City.

Building directions and visual aids would be located next to freight elevators.

Preferential parking spaces would be provided for carpools, vanpools, bicycles and to handicapped persons in the garage on-site. Allocations of reserved spaces among these users have not yet been determined. Access to the project for the disabled would be provided. All parking for commercial uses would be short-term.

A flexible time system for employee working hours would be encouraged by the project sponsor and management of the building.

A tenant carpool/vanpool system would be encouraged by provision of a central clearing-house for carpool information.

MEASURES UNDER CONSIDERATION BY THE PROJECT SPONSOR

Short-term traffic impacts due to street excavation during construction would be minimized by the project contractor by coordinating such work with construction contractors for nearby projects and with the utility agencies, if feasible.

If required as part of an overall plan developed by Muni for the project block face, the portions of the building fronting Battery, Sansome and Pine Streets would be designed to affix eyebolts or similar fixtures to the building for the suspension of Muni overhead trolley wires.

The vehicle exit on Sansome Street could be realigned to increase the distance between the proposed project garage exit and the main entrance to 220 Sansome. A member of the building management staff would be designated as a "transportation broker" to implement the above mitigation measures as parts of a transportation management program.

Within a year after completion of the project, the sponsor would conduct a survey, using a method approved by the Department of City Planning, to determine the actual trip generation, trip distribution, and modal split of project occupants, and actual pick-up and drop-off areas for carpoolers and vanpoolers. The results of this survey would be made available to the Department of City Planning. Alternatively, at the request of the Department of City Planning, the project sponsor would provide an in-lieu contribution for an overall transportation survey of the Downtown area to be conducted by the City.

Investigate development of off-site parking facilities in South of Market area.

The project sponsor would not provide free or reduced cost transit passes to employees.

F. NOISE

MEASURES UNDER CONSIDERATION BY THE PROJECT SPONSOR

Mufflers or shrouds around the jackhammers, pile drivers, and impact wrenches could be incorporated and could reduce the impacts by 10-15 dBA. Noise levels inside the adjacent offices, however, would still reach levels of up to 80 dBA when these tools were being used. The project sponsor would determine the type of measures used when the building

permit is granted by the City. The feasibility and cost would be the major criteria in the determination.

Conditions to reduce pile driving noise impacts include: restricting the hours of pile driving and requiring that the holes for the piles be predrilled, reducing the depth through which the piles must be driven and therefore the number of blows per pile. Since the nearest residential uses are over 3 city blocks away and are screened from the construction site by intervening buildings, it would be possible to eliminate pile driving as a noise impact on adjacent office buildings by requiring that pile driving take place after working hours. This measure would require a permit from the Director of Public Works pursuant to San Francisco Noise Ordinance Section 2707C.

The project sponsor would notify all offices within 100 feet of the project vicinity of the times and days of construction activity. This would allow these businesses, to the extent possible, to adjust their schedules around the construction activity.

Treatment to the existing buildings in the form of noise shields over the windows is under investigation by the project sponsor to determine the possible cost involved. Final determination would be made when the building permit is issued by the City.

Noise masks such as fountains to diminish vehicle noise from California Street could be placed in the plaza area between 351 and 311 California Street. This measure could affect the visual quality of the plaza area and main entrance to the project.

G. AIR QUALITY AND CLIMATE

MEASURES PROPOSED AS PART OF THE PROJECT

1. Air Quality

Wetting of the construction site to reduce resuspension of dust from earthmoving, demolition and construction activities as well as wind erosion of exposed earth surfaces would be done by the project sponsor. Twice-a-day application of 0.5 gallons of water per square yard of earth surface can suppress dust emissions by 50%.[1]

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[1] USEPA, Guidelines for Development of Control Strategies in Areas with Fugitive Dust Problems, OAQPS No. 1.2-071, 1977.

Contractors would maintain and operate construction equipment to minimize exhaust emissions.

During construction, drivers of trucks in loading or unloading queues could turn their off engines when not in use to reduce vehicle emissions.

Contractors would be required to cover the loads of trucks carrying excavated materials from the site in order to reduce dust and potential spillage onto streets.

Construction equipment could be limited to 15 mph on site to reduce dust.

2. Microclimate

The use of a hexagonal tower shape, multiple setbacks at the upper levels, and twin residential towers are all design features that would reduce the impact of the structures on ground level winds, compared to a design using a continuous facade. The project's location in the middle of the block makes use of the lower existing structures to reduce or divert windflows down building faces and this reduces wind effects at ground-level pedestrian areas.

MEASURES CONSIDERED BY THE PROJECT SPONSOR

Provision of areas of shelter for pedestrians would be appropriate along the sidewalks adjacent to the site. Small structures such as kiosks for newspapers or flower vendors, telephone booths and bus shelters function in this way. Similarly, street trees and statuary could be used to provide shelter. The feasibility of these measures is being investigated by the project sponsor. Consideration of sidewalk width and the extent to which pedestrian flow may be affected is being addressed in the project sponsor's investigation. Results of the investigation would be made available to the Department of City Planning.

Interior air quality would be controlled by a variable-air-volume ventilation system that would provide a minimum of one to two air changes per hour in occupied spaces. Air for ventilation would consist of a filtered mixture of outside air and recirculated air and would meet or surpass outdoor air quality. The project sponsor is examining the potential cost and construction of such a system.

Consideration would be given to designing the ventilation system so that nonsmokers would not have to breathe the recirculated smoke of smokers. The location of vents, cost and mechanical feasibility would be some of the criterion used in the decision to implement such a feature in the system.

The feasibility of setting up a screening system for interior materials, to avoid those which give off relatively large amounts of toxic gases under normal or fire conditions, would be investigated by the project sponsor.

H. ENERGY

MEASURES PROPOSED AS PART OF THE PROJECT

The design of the project would include:

- variable air volume air conditioning system (reduces need for constant air conditioning)
- outside air return air economizer cycle (allows the use of outside air for cooling)
- carbon monoxide level controlled variable air volume garage ventilation (a sensor that activates a ventilation fan only when necessary)
- high efficiency fluorescent lights and individualized light switches where possible

Project sponsor would provide containers for collection and storage of recyclable solid wastes such as glass, metal, computer cards and newspaper, and would contract for recycling service.

MEASURES CONSIDERED BY PROJECT SPONSOR

After a year of operation, an energy audit could be performed by the project sponsor to delineate further measures, if required, to bring energy consumption into conformance with the law. The Department of City Planning could be provided with energy consumption data from the audit. Additional measures could be implemented on the basis of this audit and could include:

- computer control of temperatures in ducts and pipes,
- individual room light switches and thermostats,
- motion sensors to automatically turn off lights in empty rooms.
- use of waste heat to preheat hot water or use in air conditioning system

I. COMMUNITY SERVICES AND PUBLIC UTILITIES

MEASURES PROPOSED AS PART OF THE PROJECT

The project sponsor would provide internal security measures to minimize the need for City police services.

Visitors would be screened and entrance to the offices and residential units restricted before and after normal working hours.

The building would be equipped with trash compactors to reduce the volume of solid waste requiring storage and transport.

The domestic water system would include water conservation devices such as flow control devices for lavatories and showers to minimize overall use of domestic water.

J. CONSTRUCTION

MEASURES PROPOSED AS PART OF PROJECT CONSTRUCTION

Control lines and benchmarks would be identified on adjacent buildings to monitor potential horizontal and vertical movements due to construction activity.

During excavation, the contractor would shore up and protect the walls of the excavated area to minimize the potential for worker hazards and damage to the foundations of neighboring buildings.

Mechanical equipment would be attached in a manner to reduce the probability of falling during an earthquake.

K. HAZARDS[1]

An evacuation and emergency response plan would be developed by the project sponsor or building management staff, in consulation with the Mayor's Office of Emergency Services, to insure coordination between the City's emergency planning activities and the project's plan and to provide for building occupants in the event of an emergency. The project's plan would be reviewed by the Office of Emergency Services and implemented by building management before issuance by the Department of Public Works of final building permits.

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[1] A detailed evaluation of hazard risks was focused out of the EIR during the initial study process. This mitigation measure has, however, since been added and accepted by the project sponsors.

VI. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

A. VISUAL QUALITY AND URBAN DESIGN

The proposed project would add to the San Francisco high rise skyline and would be visible from most perspectives in the City. The building would obstruct views outward from the upper floors of some nearby buildings, with the degree of blockage varying with changes in elevation and observer location. The eight-story base would obstruct views from the seventh and eighth floors of 2 adjacent buildings.

B. TRANSPORTATION, CIRCULATION AND PARKING

The project would contribute to the transportation impacts of cumulative downtown development. Quality of traffic flow on surface streets would be degraded, and the project would add to the existing congested peak-hour conditions on nearby freeways and freeway ramps. MUNI lines with load factors greater than 1.00 would experience congestion as the system's capacity probably cannot be increased by 1983. The project's 1985 contribution to the overall MUNI load factor would be about an additional 1% (raising the average factor from 1.10 to 1.11; see Table 15, page 87).

The proposed project would generate an increase in parking demand of about 860 spaces. The project would eliminate 300 existing spaces and provide 150 underground spaces, half of which would be allocated to residents. It is likely that the project's increased parking demand would contribute to the shift in parking demand farther from the downtown area.

The project would add about 2,600 pedestrian trips during the noon hour and 2,000 during the evening peak hour, which would result in a deterioration of pedestrian conditions on the west sidewalk of Battery Street between California and Pine Streets from "Impeded" to "Constrained." Loading dock facilities on Pine Street would increase truck traffic. During midday hours, an average of 7 trucks on hour would be expected to back into the Pine Street docks.

C. EMPLOYMENT AND HOUSING

The proposed project would demolish approximately 173,600 gross square feet of office and retail space on the project site and about 460 employees would be displaced. The proposed project would add approximately 879,520 square feet of office, retail, parking and residential space for a net gain of approximately 705,920 square feet.

The project employees would generate a demand for 532 units, of which 293 residences would be provided on and off-site as part of the project. An increase of about 2,240 jobs on site could be generated by the project.

D. NOISE

Noise impacts due to project construction are likely to cause intermittent work interference in neighboring office buildings. The most severe impacts would be caused by the use of jackhammers, front end loaders and trucks during the demolition phase, and by pile drivers during the foundation phase. Noise levels in these periods could exceed the legal limit despite the proposed mitigation measures.

E. AIR QUALITY AND CLIMATE

While the project would not be in direct conflict with the strategies of the Air Quality Plan, the objectives of the Plan would be impeded by the additional emissions of project-generated traffic. Combined with cumulative downtown development, the project would add to local and regional accumulations of pollutant emissions. Demolition, earthmoving and construction activities could increase particulate concentrations in adjacent areas.

F. ENERGY

Based on an estimated annual increase in regional VMT of 10.6 million miles resulting from project-generated traffic, the annual automobile transportation energy consumption would be 530,000 gallons of gasoline, equivalent to 66 billion BTU or 12,000 barrels of crude oil.

VII. ALTERNATIVES TO THE PROPOSED PROJECT

A. ALTERNATIVE 1: NO PROJECT

This alternative would entail no change to the project site as it now exists. The parking facility on 220 Sansome would continue to provide space for 150 vehicles. The 3 office buildings scheduled for demolition (333 California, about 32,300 square feet; 141 Battery, about 123,700 square feet; and 244 Pine, about 17,500 square feet) would remain.

With the retention of the project site in its present state, none of the impacts associated with the proposed 333 California Building would occur. The existing transportation and air quality conditions (see III.E. and G., pages 42 and 53) would continue on streets around the site. The peak hour level of service on the streets surrounding the project would remain unchanged and MUNI load factors would be 1% lower than if the proposed project were implemented. The demand for vehicle parking spaces in the area would continue to exceed supply.

The area's noise environment would not change and there would be no change in the demand on the site for community services. Total composite tax revenues for the project site would remain about $80,300 per year, with the property tax increasing at the 2% annual rate allowable under Proposition 13.

The project sponsor has rejected this alternative because the 3 existing buildings, and the parking lot, contain less than 20% of the floor area allowed at the site, are spatially wasteful, (i.e. the site could contain more square feet of building than is actually constructed) and would fail to provide the desired return on the sponsor's investment.

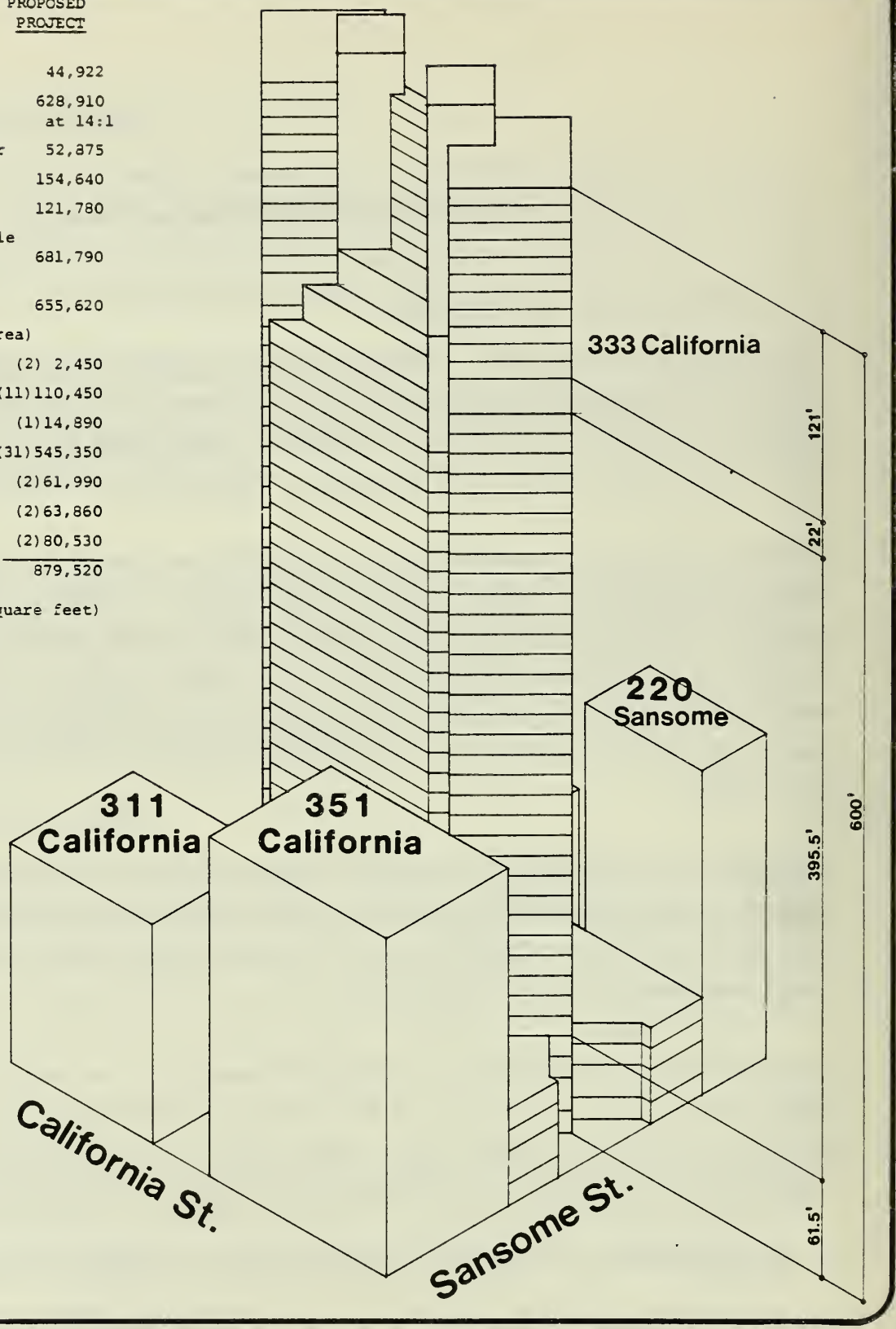
B. ALTERNATIVE 2: PROPOSED PROJECT WITHOUT REMOVAL OF 333 CALIFORNIA

This alternative considers the retention of the 333 California Building (Figures 33 and 34, pages 128 and 129.)[1] Table 24, page 130, provides a comparison of all alternatives by

[1] Figure 33: A perspective of the proposed project is included for comparison with other alternatives with respect to the form, height and bulk of the buildings.

AREA CALCULATIONS	PROPOSED PROJECT
Total Site	44,922
Base Floor Area	628,910 at 14:1
Development Rights Transfer	52,875
Bonus Floor Area	154,640
Residential Area Used	121,780
Maximum Floor Area Available for Office & Retail	681,790
Actual Retail & Office Floor Area	655,620
BUILDING SIZE (Gross Area)	
Mechanical Penthouses	(2) 2,450
Residential Levels	(11) 110,450
Mechanical Levels	(1) 14,890
Office Tower Levels	(31) 545,350
Office Podium/Mech. Levels	(2) 61,990
Street & Lobby Levels	(2) 63,860
Basement Levels	(2) 80,530
TOTAL	879,520

(all numbers in square feet)



Perspective of Proposed Project

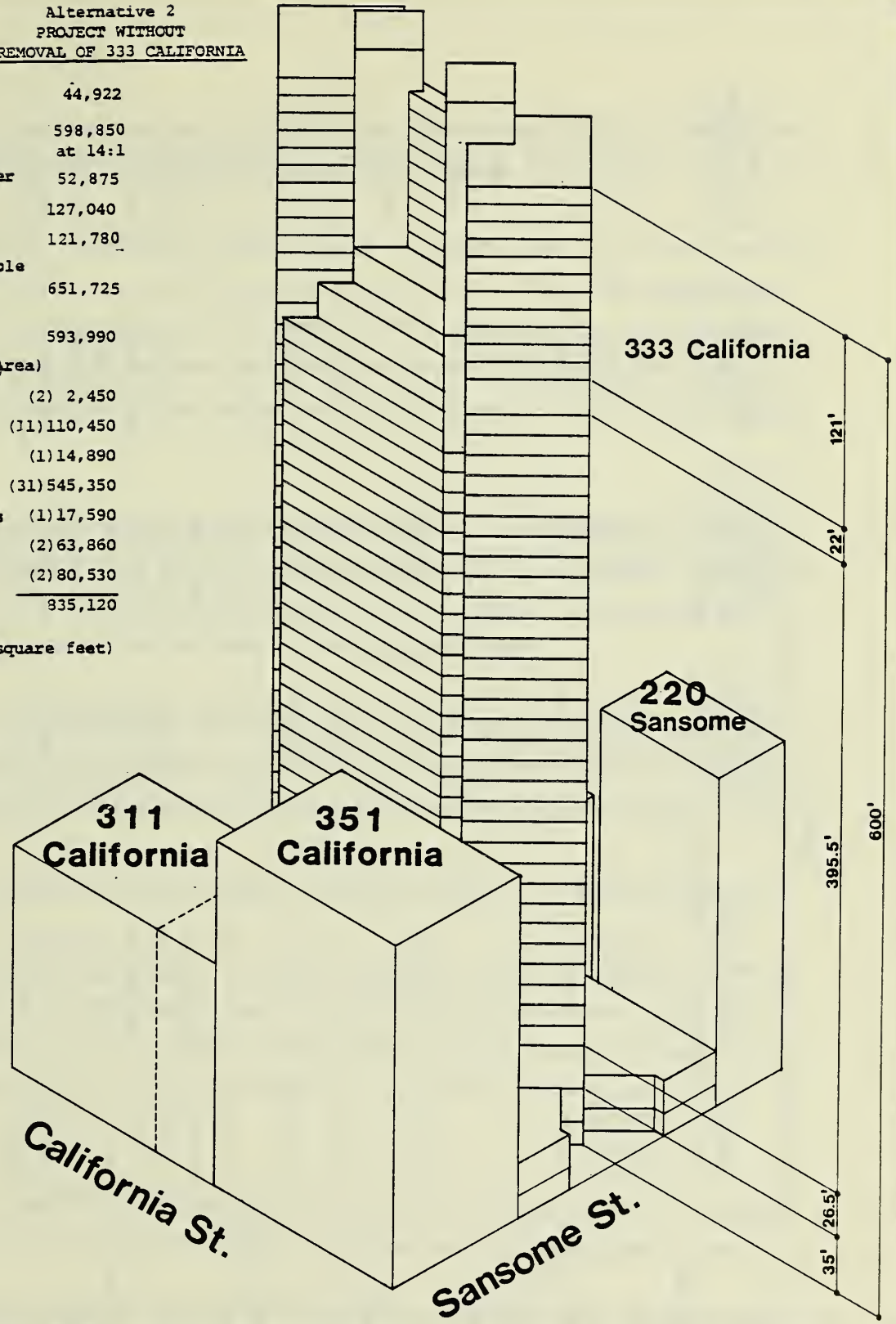
SOURCE: Skidmore, Owings & Merrill

Figure No. 33

Alternative 2
PROJECT WITHOUT
REMOVAL OF 333 CALIFORNIA

AREA CALCULATIONS	
Total Site	44,922
Base Floor Area	598,850 at 14:1
Development Rights Transfer	52,875
Bonus Floor Area	127,040
Residential Area Used	121,780
Maximum Floor Area Available for Office & Retail	651,725
Actual Retail & Office Floor Area	593,990
BUILDING SIZE (Gross Area)	
Mechanical Penthouses	(2) 2,450
Residential Levels	(11) 110,450
Mechanical Levels	(1) 14,890
Office Tower Levels	(31) 545,350
Office Podium/Mech. Levels	(1) 17,590
Street & Lobby Levels	(2) 63,860
Basement Levels	(2) 80,530
TOTAL	835,120

(all numbers in square feet)



Proposed Project without Removal of 333 California: Alternative 2

SOURCE: Skidmore, Owings & Merrill

Figure No. 34

TABLE 24

COMPARISON OF THE RELATIVE SIZE OF ALTERNATIVES (ALL NUMBERS IN SQUARE FEET)

AREA CALCULATIONS	PROPOSED PROJECT	Alternative 2 PROJECT WITHOUT REMOVAL OF 333 CALIFORNIA	Alternative 3 INTERIM CONTROLS NO RESIDENTIAL ON SITE	Alternative 4 INTERIM CONTROLS WITH MAXIMUM RESIDENTIAL ON SITE	Alternative 5 INTERIM CONTROLS WITH FULL COMPLIANCE	Alternative 6 GUIDING DOWNTOWN DEVELOPMENT
Total Site	44,922	44,922	44,922	44,922	44,922	44,922
Base Floor Area	628,910 at 14:1	598,850[2] at 14:1	628,910 at 14:1	628,910 at 14:1	628,910 at 14:1	539,060 at 12:1
Development Rights Transfer[1]	52,875	52,875	52,880	52,880	52,875	24,800
Retail Allowance at 0.5:1 F.A.R.	--	--	--	--	--	22,460
Restoration Allowance	--	--	--	--	--	46,500
Residential Allowance	--	--	--	--	--	224,610 at 5:1
Bonus Floor Area	154,640	127,040	--	154,640	--	--
Residential Area Used	121,780	121,780	--	154,640	--	133,380
Maximum Floor Area Available For Office and Retail	681,790	651,725	681,790	681,780	681,785	632,821[3]
Actual Retail and Office Floor Area	655,620	593,990	681,700	617,160	681,785	608,800[3]
BUILDING SIZE (Gross Area)						
Mechanical Penthouses	(2) 2,450	(2) 2,450	--	(2) 2,450	--	(1) 6,160
Residential Levels	(11)110,450	(11) 110,450	--	(10)143,600	--	(9)133,380
Mechanical Levels	(1) 14,890	(1) 14,890	(1) 17,590	(1) 14,900	(1) 17,000	(1) 21,000
Office Tower Levels	(31)545,350	(31) 545,350	(35)615,720	(32)562,950	(36)612,000	(29)553,800
Office Podium /Mech. Levels	(2) 61,990	(1) 17,590	(1) 17,590	(1) 17,590	(1) 17,000	
Street and Lobby Levels	(2) 63,860	(2) 63,860	(2) 63,860	(2) 63,860	(2) 70,000	(1) 41,000
Basement Levels	(2) 80,530	(2) 80,530	(2) 80,530	(2) 80,530	(2) 80,528	(2) 80,530
TOTALS	879,520	835,120	795,290	885,870	796,528	835,868

[1]The Guiding Downtown Development Alternative (Number 6) is calculated with a lower F.A.R. (12:1) than the proposed project (14:1) and the square footage available for Development Rights Transfer is less.

[2]The 30,056 square feet in the existing 333 California building must be deducted from the total base floor area as the site of the proposed project includes the existing 333 California site.

[3]Under Guiding Downtown Development, the parking spaces for non-residential use (20,000 square feet) is included in the total F.A.R. calculations.

Source: Skidmore, Owings & Merrill

listing the allowable area calculations for Floor Area Ratio under each alternative and indicates the probable square footage for each potential building.

As indicated in Table 24, Alternative 2 would deduct the square feet of the existing 333 California building (30,056 square feet) from the base floor area. The FAR used would be 13.2:1 for office, 2.7:1 for residential for a total of 15.9:1. Assuming the use of the same design form as the proposed project and the maximum amount of floor area available for office, 2 floors of office space in the podium would be removed (a loss of about 44,400 square feet).

An entrance to the proposed project could be constructed at 333 California as a corridor extending from California Street to the proposed lobby area. The existant California Street facade on the 333 California Building would remain intact. Underground parking spaces and retail services would be the same as the proposed project.

With this alternative, approximately 180 employees in the existing 333 California Building would not be displaced by the proposed project, with the exception of those who work on the ground floor which would become an entrance corridor to the proposed project.

Wind, shadow and sun patterns would be similar to those created by the proposed project.

Levels of most employment-related impacts, including traffic generation, parking demand, transit demand, air pollution, noise, energy consumption, and most public service demands would be similar to those of the proposed project since the total floor area on the project site (including that of the buildings to be retained) would be essentially the same.[1]

This alternative was rejected by the project sponsor because it fails to achieve the goals met by removing the 333 California Building: to provide an obvious and public means of

[1] This alternative could generate about 2% lower daily and peak hour trips than the proposed project. Since the probable error in the trip generation projections is on the order of ±10%, the impacts of this alternative are in effect indistinguishable from those of the proposed project. Due to variation in the trip generation characteristics of individual building tenants, the actual office space trip generation rate can be expected to fluctuate depending on the habits of its occupants.

access from California Street to the project's pedestrian/retail arcade; to provide a clear identity for the project on California street; and to restore to their original relationship the two existing California Street buildings (311 to 351 California Street) as separate structures.

C. ALTERNATIVE 3: INTERIM CONTROLS, NO RESIDENTIAL UNITS[1]

This alternative (Figure 35, page 133, Table 24, page 130) would have no residential units on the site, and provides a building without the twin towers that would allow 615,700 square feet of office space (35 floors of tower about 26,000 square feet more office space than the proposed project). No bonus is allowed under interim controls and none is claimed; the actual building would be 84,200 square feet less than the proposed project. The FAR would be 15:1 for the building (compared to 14:1 for the proposed project) due to full utilization of the development rights transfer. The parking spaces (150) and retail services (18,500 square feet) would be the same as the proposed project.

Approximately 2% fewer daily trips and 1% more peak hour trips would be generated by this alternative than the proposed project. The difference in trip generation is less than the ±10% accuracy of the data. The levels of most employment-related impacts, including traffic generation, parking demand, transit demand, air pollution, noise, energy consumption, and most public service demands would be slightly fewer than the proposed project. The demand for housing would increase as no housing would be on the project site (actual demand based on 40% of employees at 250 square feet per employee divided by 1.8 employee per household would be 547 units). Municipal revenues generated by this alternative would be about 10 to 15% less than the proposed project, particularly with respect to property tax, transfer tax on the sale of the condominiums, and sales tax expended by residents living in the proposed project.

This alternative was rejected by the project sponsor as it does not meet the objectives of providing a mixed-use building, achieving a maximum return on investment, and creating a unique design with the twin-tower feature on the upper 11 stories.

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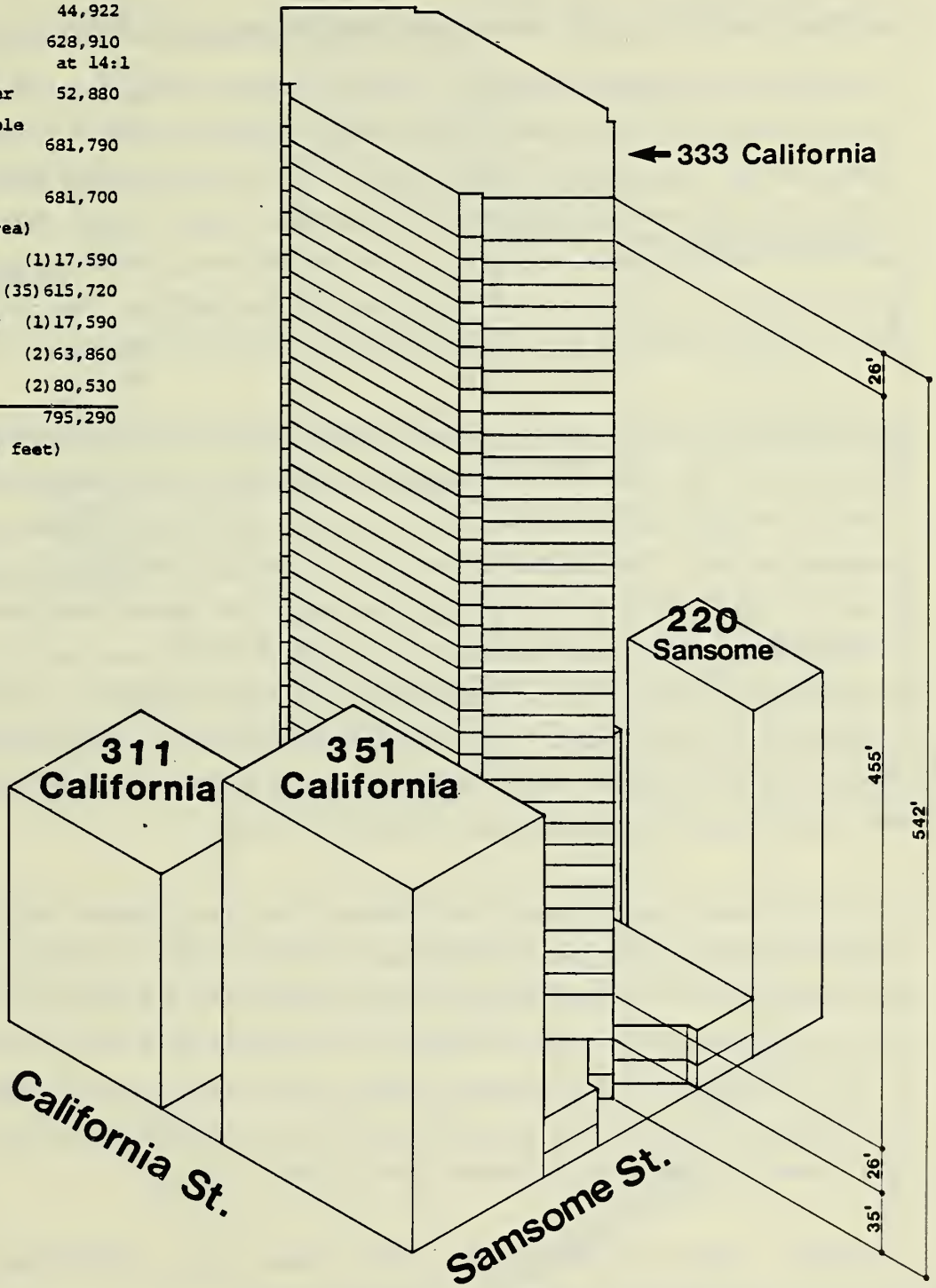
[1] The interim bonus controls impose limitations upon the award of bonus provisions which provide for an increase in FAR within C-3 districts for all projects. The controls were extended to 1 July 1983, pending completion of a Downtown EIR Ordinance 322-81.

AREA CALCULATIONS	Alternative 3 INTERIM CONTROLS NO RESIDENTIAL ON SITE
Total Site	44,922
Base Floor Area	628,910 at 14:1
Development Rights Transfer	52,880
Maximum Floor Area Available for Office and Retail	681,790
Actual Retail & Office Floor Area	681,700
BUILDING SIZE (Gross Area)	
Mechanical Levels	(1) 17,590
Office Tower Levels	(35) 615,720
Office Podium/Mech. Levels	(1) 17,590
Street & Lobby Levels	(2) 63,860
Basement Levels	(2) 80,530
TOTAL	795,290

(all numbers in square feet)



Interim Controls with No Residential: Alternative 3

SOURCE: Skidmore, Owings & Merrill

Figure No. 35

D. ALTERNATIVE 4:
INTERIM CONTROLS, USE OF MAXIMUM RESIDENTIAL BONUS FLOOR AREA

This alternative (Figure 36, page 135, Table 24, page 130) includes in the project design the maximum bonus floor area allowable with a square footage of 154,640 square feet for residential use[1] (compared to 121,780 square feet in the proposed project). The building form in this alternative is similar to the proposed project except that elimination of the twin tower design permits each floor to provide additional residential space (60,400 square feet) resulting in a total of 110 to 115 units in the building. The FAR for office space would be 13.7:1 and 3.4:1 for residential space. Total FAR would be 17.1:1.

This alternative would have the most square feet of all the alternatives (about 9,200 square feet or 1% more than the proposed project due to the increased bonus floor area), although available office space would be about 50,400 gross square feet less than the proposed building. The additional residential space and reduction in office space would generate about 4% fewer daily trips and about 6% fewer peak hour trips. Traffic-generated noise and air quality impacts would be 4% to 6% less than the proposed project, but there would be an 8% to 10% increase in energy consumption and demand for public services due to the increase in residential units on the site. The parking spaces (150) and retail area (12,000 square feet, would be the same as the proposed project). It is possible that retail space may provide some residential services.

The urban design impacts would be different from the proposed building. Although the residential portion would be distinguished architecturally by setbacks on the north and south sides, the twin tower design would be absent and the single tower would be more bulky in appearance than the twin towers. Fiscal revenues to the City would be about 15 to 20% higher than for the proposed project due to the increase in taxes associated with the residential units, such as sales tax on the units, transfer tax on each resold unit and utility users tax (higher in residences than offices).

Residential support facilities (e.g. food stores) and entertainment facilities and restaurants would be the same as the proposed project.

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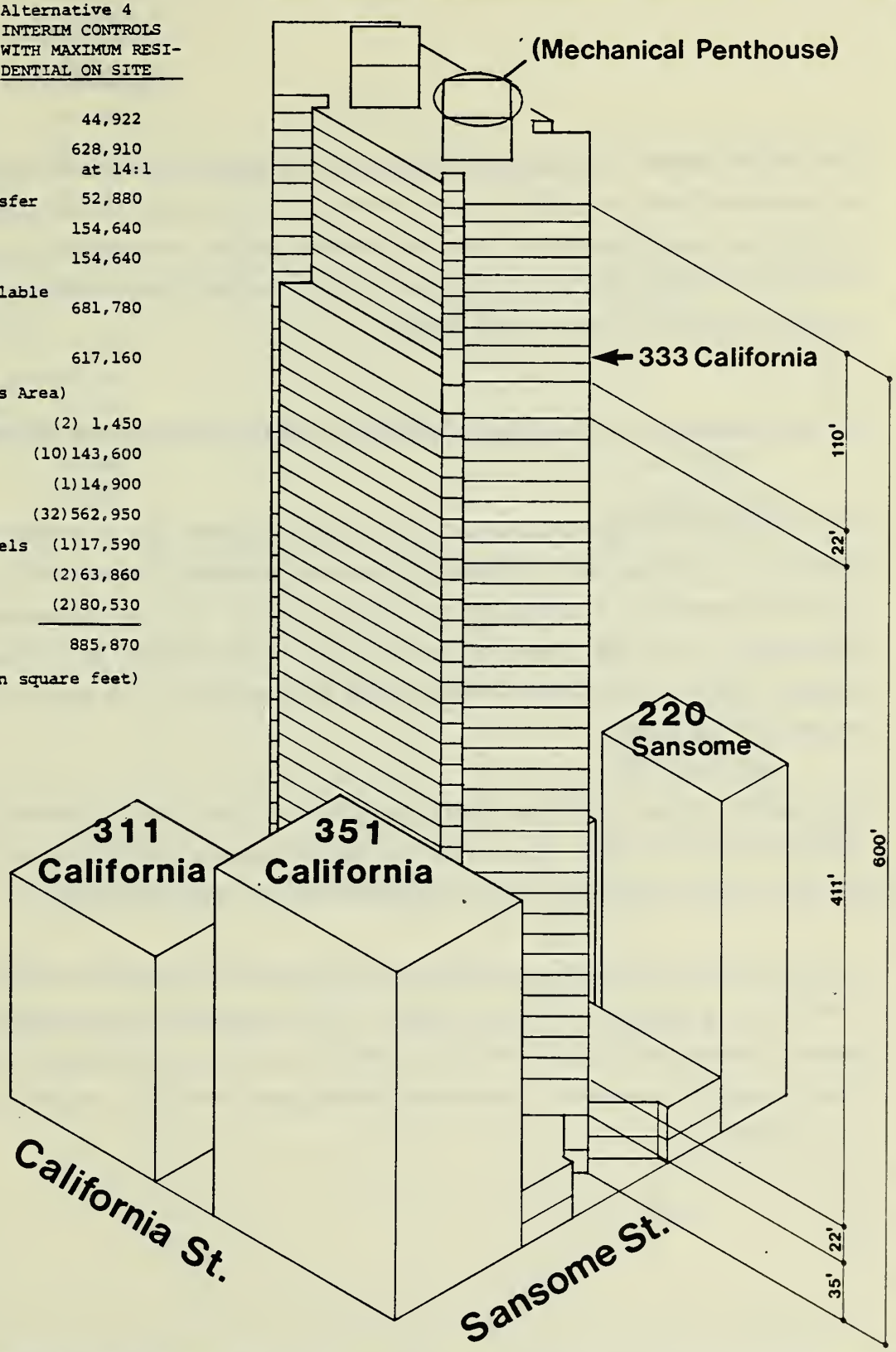
[1] San Francisco Department of City Planning, Planning Code, Section 126, 1979 Edition. The bonuses claimed are multiple building entrances (40,000 square feet), shortening walking distance (12,000 square feet). Plaza area in front of main entrance on 333 California (27,600 square feet) and low coverage at upper floors (75,000 square feet).

Alternative 4
INTERIM CONTROLS
WITH MAXIMUM RESI-
DENTIAL ON SITE

AREA CALCULATIONS	
Total Site	44,922
Base Floor Area	628,910 at 14:1
Development Rights Transfer	52,880
Bonus Floor Area	154,640
Residential Area Used	154,640
Maximum Floor Area Available for Office & Retail	681,780
Actual Retail & Office Floor Area	617,160
BUILDING SIZE (Gross Area)	
Mechanical Penthouses	(2) 1,450
Residential Levels	(10) 143,600
Mechanical Levels	(1) 14,900
Office Tower Levels	(32) 562,950
Office Podium/Mech. Levels	(1) 17,590
Street & Lobby Levels	(2) 63,860
Basement Levels	(2) 80,530
TOTAL	885,870

(all numbers in square feet)



Interim Controls with Maximum Residential Bonus: Alternative 4

SOURCE: Skidmore, Owings & Merrill

Figure No. 36

The project sponsor rejects Alternative 4 on the grounds that the twin tower design would be precluded with the additional residential units and the building would have 50,400 square feet less office space than the proposed project (the project sponsor assumes that office space would provide a higher return on investment then residential space and would prefer to maximize use of office space).

E. ALTERNATIVE 5: INTERIM CONTROLS, NO EXCEPTIONS TO PLANNING CODE

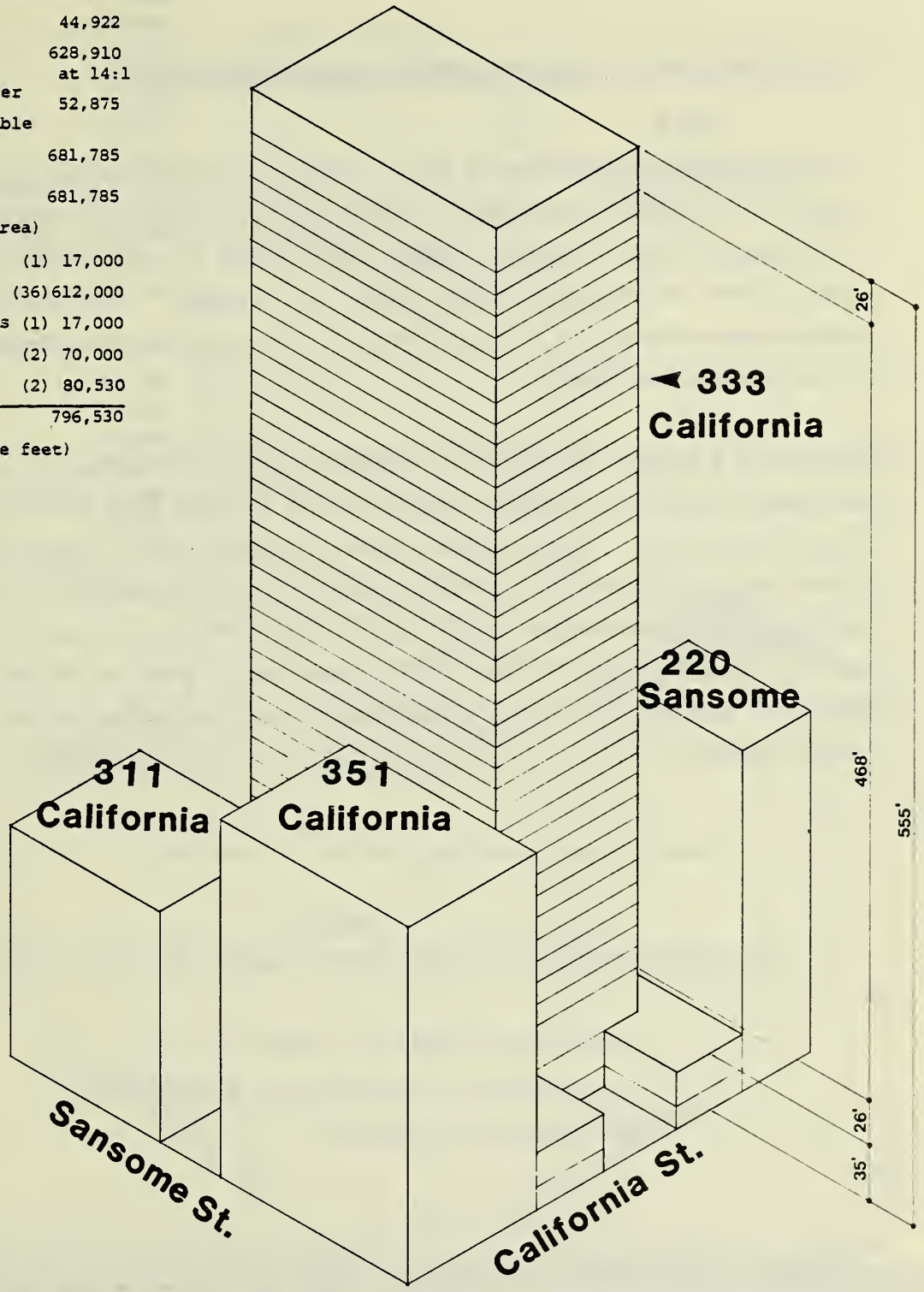
This Alternative (Figure 37, page 137, Table 24, page 130) is similar to Alternative 3 except no exceptions ot the Planning Code are requested. No residential bonus is claimed and there would be no exception to height and bulk. The square footage is the same as Alternative 3, but the dimensions of the building are different as the hexagon slope is no longer present. Five loading docks would be located on the ground level with direct access to Pine Street.

The building form would be more box-like to obtain the allowable height and bulk dimensions of the Code. There would be no twin towers and the visual impression of the building would be different than the proposed project and Alternative 3.

All environmental impacts associated with this alternative would be similar to Alternative 3 with the exception of visual impacts. This alternative was rejected by the project sponsor because the height and bulk restrictions are too confining in terms of building design, does not allow for a mixed-use building, and would not achieve a maximum return on investment.

AREA CALCULATIONS	Alternative 5 INTERIM CONTROLS WITH FULL COMPLIANCE
Total Site	44,922
Base Floor Area	628,910 at 14:1
Development Rights Transfer	52,875
Maximum Floor Area Available for Office and Retail	681,785
Actual Retail & Office Floor Area	681,785
BUILDING SIZE (Gross Area)	
Mechanical Levels	(1) 17,000
Office Tower Levels	(36) 612,000
Office Podium/Mech. Levels	(1) 17,000
Street & Lobby Levels	(2) 70,000
Basement Levels	(2) 80,530
TOTAL	796,530

(all numbers in square feet)



Interim Controls with No Exceptions to Code: Alternative 5

Figure No.37

F. ALTERNATIVE 6: GUIDING DOWNTOWN DEVELOPMENT

The Department of City Planning issued Guiding Downtown Development[1] which contains a series of regulatory proposals for managing development in downtown San Francisco. The proposals concern the size, design, and location of major buildings and address the impacts new development could have on housing, transportation, open space, architecturally significant older buildings, and the general environment and livability of the central business district.

Alternative 6 (Figure 38, page 139, Table 24, page 130) considers a building that is 100 feet less (17%) in height and about 43,652 square feet less (5%) than the proposed project. It would consist of a single 39-story tower emerging from a 1-story podium that would contain retail and lobby areas. There would be 133,380 square feet of residential space. The housing requirements in GDD would require 640 square feet of residential space (about 0.9 dwelling units) for each 1,000 square feet of gross office space.[2] For a project the size of that proposed in this alternative, 498 units would be required, as calculated in Table 25, below.

TABLE 25

PROPOSED HOUSING REQUIREMENTS BASED ON GROSS OFFICE AREA

553,800 sq. ft. (office) - 1,000 sq. ft = 554

554 x 640 sq. ft. = 354,560 sq. ft. housing

554 x 0.9 units = 498 units

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[1] Resolution 8982 (adopted by the City Planning Commission 4 June 1981) requires an alternative building proposal that would comply with the proposed controls contained in Guiding Downtown Development. Alternatives 6 and 7 address this Resolution.

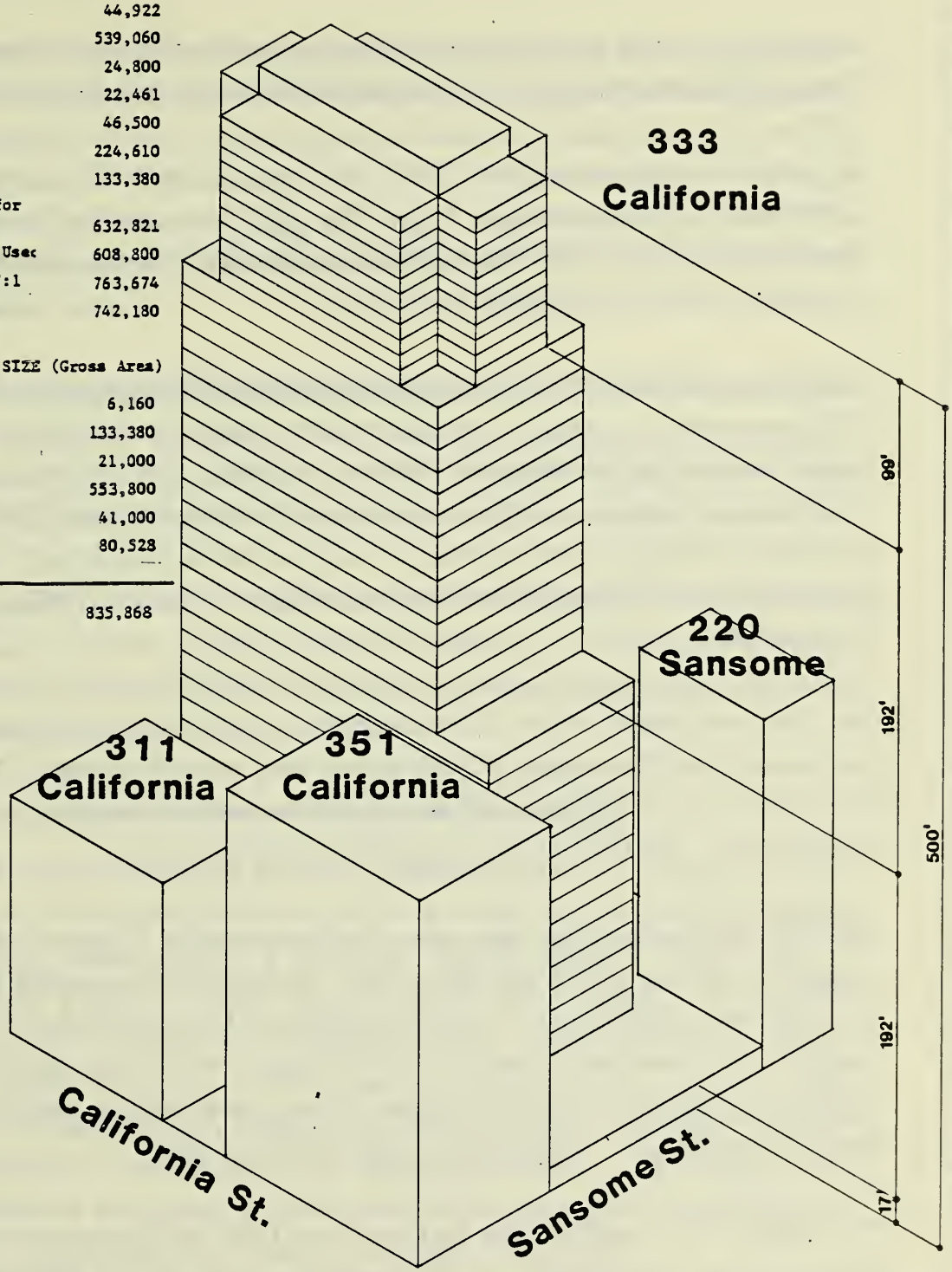
[2] San Francisco Department of City Planning, Guiding Downtown Development, May 1981. The proposals contained in the report will undergo an extended period of public review and comment as well as an environmental impact assessment. The proposals will then be modified as appropriate in light of the review and assessment.

AREA CALCULATIONS

Total Site	44,922
Basic Floor Area at 12:1	539,060
Development Rights Transfer	24,800
Retail Allowance at 0.5:1	22,461
Restoration Allowance	46,500
Residential Allowance at 5:1	224,610
Residential Area Used	133,380
Maximum Floor Area Available for Office and Retail	632,821
Actual Office and Retail Area Used	608,800
Maximum Development Area at 17:1	763,674
Maximum Development Area Used	742,180

BUILDING SIZE (Gross Area)

Mechanical Penthouses (1)	6,160
Residential Levels (9)	133,380
Mechanical Level (1)	21,000
Office Tower Levels (29)	553,800
Street Level (1)	41,000
Basement Levels (2)	80,528
TOTAL	835,868



Perspective of Alternative 6: Guiding Downtown Development

SOURCE: Skidmore, Owings & Merrill

Figure No. 38

Assuming the same gross square footage per residential unit as the proposed project (about 1,900 gross square ft/unit), this alternative would contain approximately 67 units.

As part of the proposed project, 238 units of low and moderate-income housing are being refurbished at various locations in the City with funds provided by the project sponsor. The remainder of the units would need to be provided by the project sponsor in a manner acceptable to the City Planning Commission.

Under the proposals set forth in Guiding Downtown Development, this alternative uses FAR bonuses for air rights transfer from an adjacent building (311 California) 24,800 square feet and for retention of adjacent buildings (311 California and 351 California 46,500 square feet)[1] In addition, a maximum FAR allowance of 0.5:1 may be requested for provision of retail space on the first level of the building (22,461 square feet). These 3 bonuses total 93,760 square feet and are included in the total FAR calculations in Table 24, page 130.

The FAR calculations under GDD include that portion of the parking space allocated for commercial and office space (20,000 square feet, about 50 spaces). The maximum FAR permitted with development rights transfer, restoration, housing and retail allowances would be 17:1. The FAR for this alternative would be 16.5:1.

The GDD requirements for open space provisions require 1 square foot for each 25 gross square feet of commercial and office area. This alternative provides 588,000 square feet of commercial/office space which would require 23,522 square feet of open space. The design for this alternative includes 23,922 square feet of open space in the plaza area between 311 and 351 California, the top of the ground floor podium, and 5 terraces (1 on the 16th floor and 4 on the 31st floor, Figure 38, page 139).

The height of the building (500 feet) and bulk (200 feet for average diagonal dimension above 65 feet requirements of GDD would be met in this alternative (the building averages 200 square feet diagonal dimension above 65 feet). GDD calls for 5 loading docks which would be provided in the project on the ground floor. About 122 parking spaces would be available, of which 55 would be for office space users and the balance for residents (which may be subject to a conditional use permit).

---

[1] San Francisco Department of City Planning, Guiding Downtown Development, San Francisco, May 1981, pages B-1, F-11 and F-12.

The employment-related impacts of Alternative 6 would be less than those of the proposed project including air pollution, noise, fiscal effects, energy consumption, housing demand and public service demands. There would be about 3% fewer daily trips and 2% fewer peak hour trips than for the proposed project. The 1985 estimated levels of service for City streets shown in Table 14, page 85, would remain unchanged under this alternative. Transit and pedestrian load factors and levels of service would remain the same as for the proposed project.

Shadow and wind effects would be less than for the proposed 333 California Building as the building would be 100 feet shorter. The 9 floors of residential units would be architecturally separated from the office tower with set backs on all four corners. The visual prominence of the proposed project would be reduced with this shorter alternative.

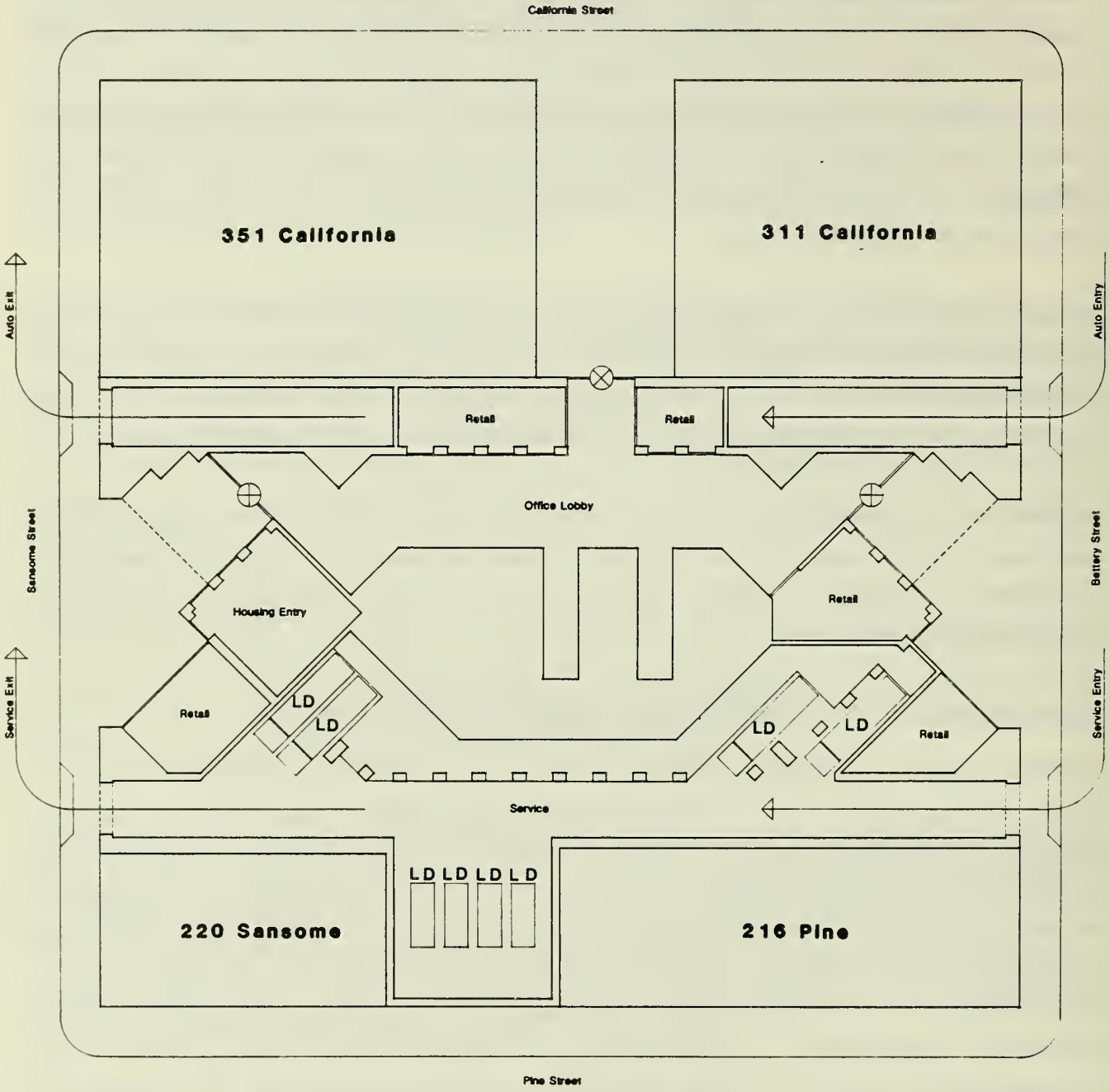
Alternative 6 was rejected because it does not meet the objectives of providing a maximum office space as the proposed project achieving an optimum return on investment, and creating a design different from other downtown buildings with the twin-tower building profile.

G. ALTERNATIVE 7: LOADING DOCKS AND PARKING VARIATION

Current regulations for loading facilities for the proposed project call for a total of 5 off-street loading spaces. The proposed revision of these regulations, set forth in Guiding Downtown Development would require 8 off-street loading spaces (1 space for the residential area and 0.1 spaces per 10,000 square feet of office space). The proposed project provides 8 spaces: 4 full-size truck spaces (including 1 space 55 feet in length and 3 spaces 35 feet in length) at grade on Pine Street and 4 delivery van or pick-up truck-sized spaces in the 1st basement level entering off Battery Street. This section reviews alternative arrangements of loading dock and parking facilities. The Design of the proposed project would not be altered in these alternatives other than the openings for vehicles on Sansome, Pine and Battery Streets on the ground floor level.

7a. All Loading Docks on Street Level

In this alternative all loading docks would be on street level, with entrance from Battery Street and exit onto Sansome Street (Figure 39, page 142). Separate driveways on Battery and Sansome Streets would give access to basement parking. About 80% (about 15,000 square feet) of the proposed retail/commercial space would be removed from the project, and the proposed public arcade would become an office building lobby at street level.



LD= Loading Dock

Alternative 7a: Ground Level Floor Plan

North

0 20 40 80

Scale Feet

SOURCE: Skidmore, Owings & Merrill

Figure No.39

The project sponsor rejected this alternative because it would not meet the objectives of the proposed design in providing a public ground level pedestrian arcade with retail space (as suggested in Guiding Downtown Development), providing convenient and manageable loading and parking facilities with a minimum constraint to the rest of the project, and creating the least possible vehicle-pedestrian conflict commensurate with the above goals.

7b. All Loading Docks on 1st Basement Level

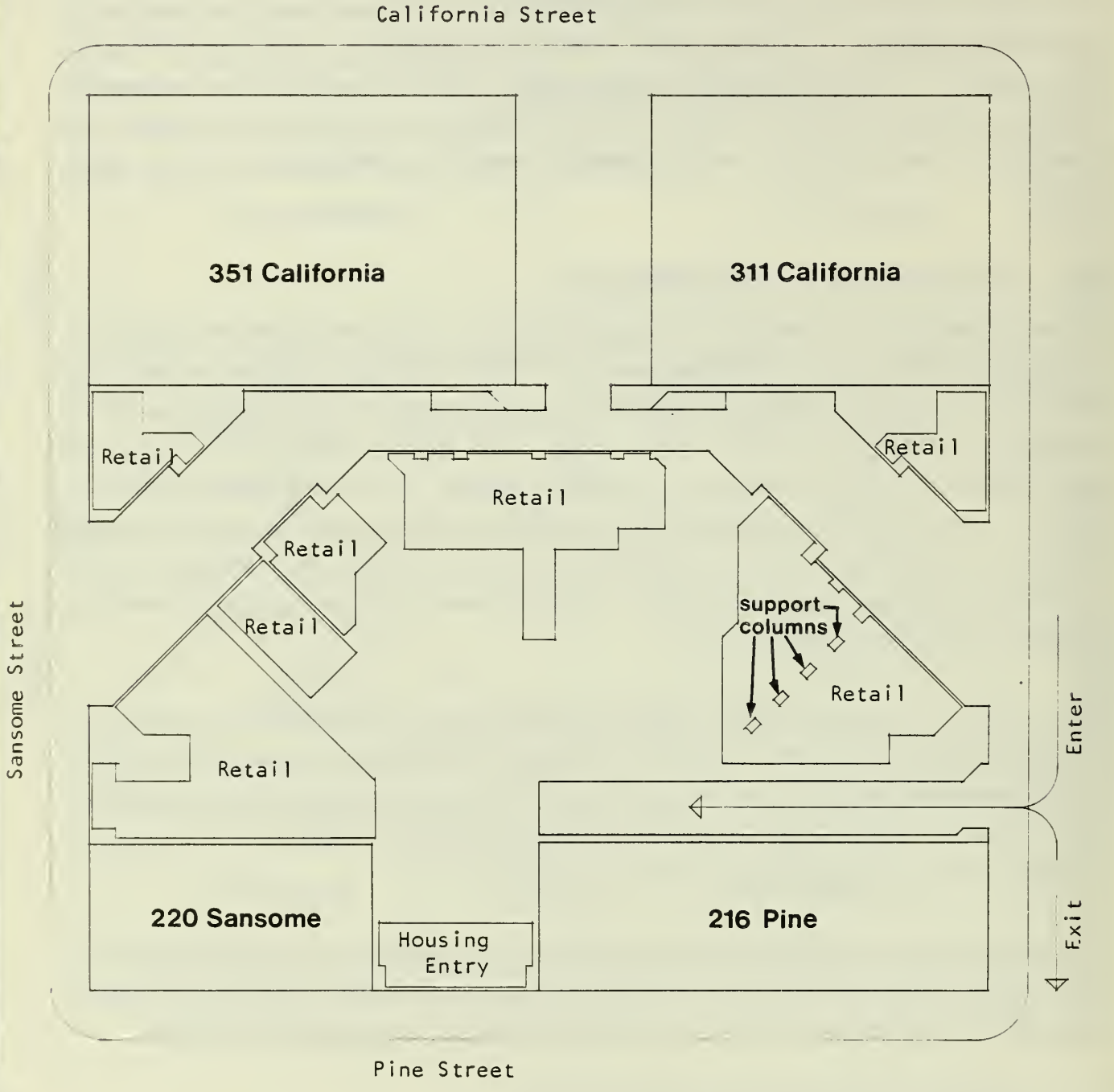
In this alternative all docking facilities would be on the 1st basement level, with automobile parking and the 2nd basement level (Figures 40 and 41, pages 144 and 145). Both levels would be accessible via a single lane driveway off of Battery Street that would require an attendant to direct traffic flow. The Battery Street entrance to the alternative would be the same as to proposed project. The exit proposed on Battery Street is close to the intersection of Pine and Battery Streets and could create potential conflicts with traffic flow. The residential entrance and exit from Pine Street would not interfere with Pine Street traffic flow. Approximately 40 parking spaces would be available on the 2nd basement level.

The single entrance for service vehicles would be restrictive as Battery is a one-way southbound street and traffic would have to go around the block for access to the project unless vehicles/vans/trucks come directly from the Embarcadero freeway and travel south down Battery. Retail space on the street level would be increased over the proposed project and the pedestrian arcade would be retained.

The project sponsor rejected this alternative because it would not meet the objectives of the proposed design in providing convenient and accessible loading and parking facilities, and allowing parking spaces for all residents of the project and major office tenants.

7c. Restriction of Parking to Only Residential Use

This alternative would limit parking on site to exclusive use by residents of the 11 floors of condominiums based on code requirements of 1 space for 4 units times 150% (approximately 21 spaces). No office/commercial space would be available. This alternative would allow additional space in the basement level for office or commercial uses, but would not meet the project sponsor's requirements for some office and commerical parking space and one parking space per residential unit. For those reasons the alternative was rejected.



Alternative 7b: Ground Level Floor Plan

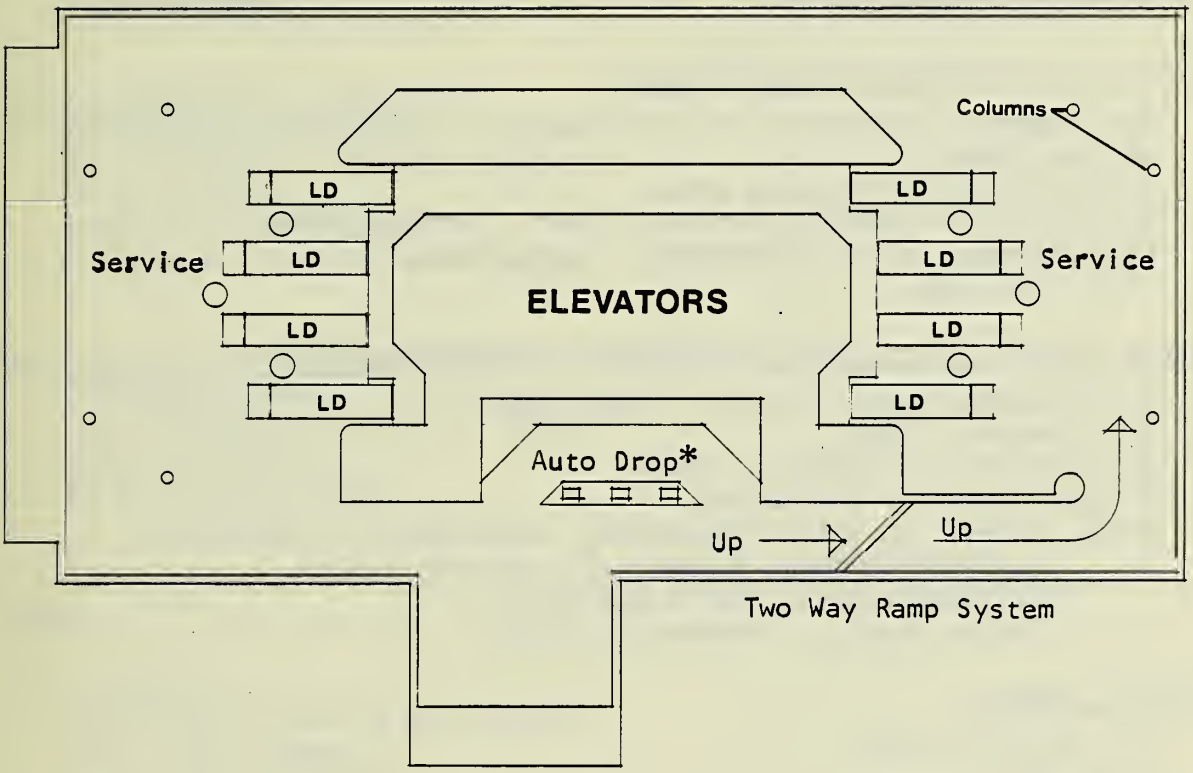
North

0 20 40 80

Scale Feet

SOURCE: Skidmore, Owings & Merrill

Figure No. 40



*For Valet Parking LD=Loading Dock

Alternative 7b: First Basement Level Floor Plan

North

0 20 40 80

Scale Feet

SOURCE: Skidmore, Owings & Merrill

Figure No. 41

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APPENDICES

SAN FRANCISCO DEPARTMENT OF CITY PLANNING 100 LARKIN STREET · SAN FRANCISCO, CALIFORNIA 94102

APPENDIX A

FINAL INITIAL STUDY

333 CALIFORNIA BUILDING

4 December 1981

81.249E

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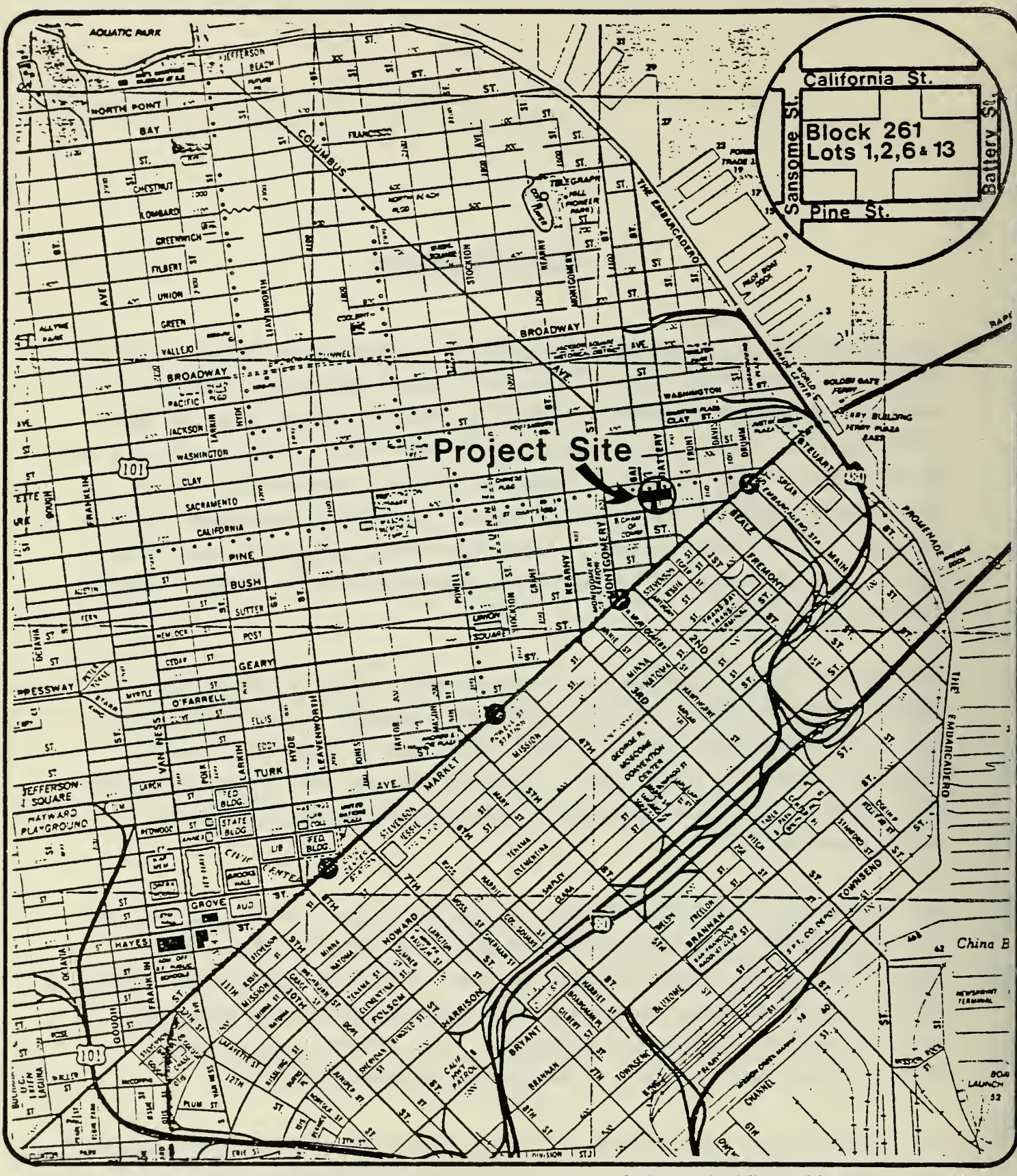
I. PROJECT DESCRIPTION

The proposed 333 California Building would be a mixed-use development containing residential condominium units, office space, retail/commercial space and parking. The site is located in Assessor's Block 261, lots 2, 6, 13, and a portion of 1, and is approximately 44,670 square feet. The project site is at the center of San Francisco's Financial District in the middle of the Dollar Block bounded by California, Battery, Pine and Sansome Streets (Figures 1, 2 and 3). The main entrance to the project would be on California Street (333 California, Figure 3) and additional entrances would be on Pine, Sansome and Battery Streets.

The proposed project site currently contains three office buildings and a parking lot. The three buildings (333 California about 32,300 square feet, 141 Battery approximately 123,700 square feet, and 244 Pine about 17,500 square feet) would be demolished and replaced with the proposed Daon structure. Existing businesses and retail establishments would have to be relocated during construction.

The total project, including office, residential, retail, mechanical, service and parking space would comprise approximately 865,250 gross square feet (Figure 4). The building would rise 600 feet (47 stories) above grade, (Figure 5) and would have two levels of parking below grade containing 150 spaces (half of which would be allocated to residents). About 601,200 gross square feet of office space and about 72 dwelling units would be provided.

The first two levels are planned for lobbies (one lobby would be for exclusive use of the residential portion of the project), retail space, mechanical space, and access to parking and truck service. The ground level plan would include a T-shaped pedestrian arcade running through the block from east



Site Location Map

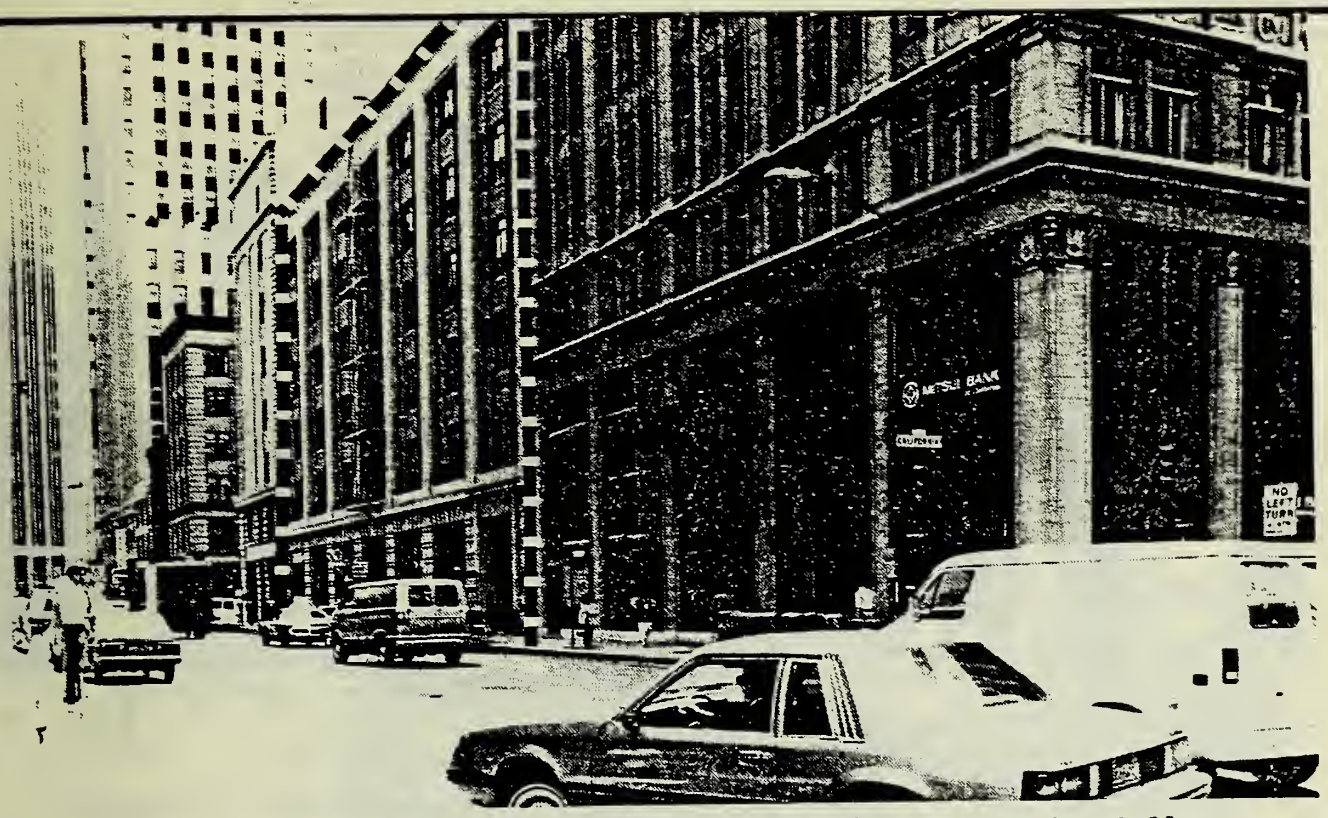
North

0 500 1000 2000

Scale Feet

Source: EIP, Corp.

Figure No.1



A. Portion of project site facing Battery Street (the R. Stanley Dollar Building, 141 Battery Street).

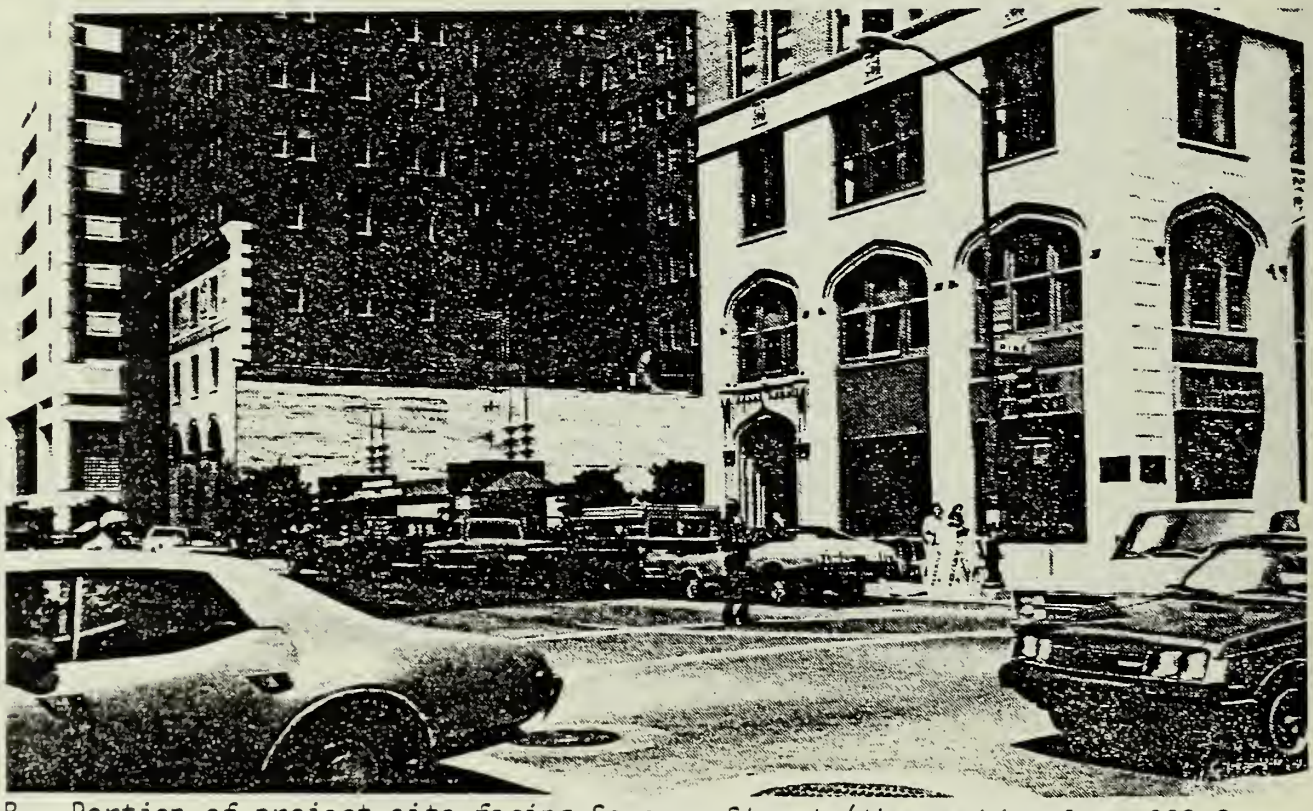
A. Portion of project site facing Pine Street (244 Pine Street looking east from the corner of Pine and Battery).

Project Area Photographs

Source: EIP, Corp.

Figure No. 2

B. Portion of project site facing Pine Street (244 Pine Street looking west from the corner or Sansome and Pine).

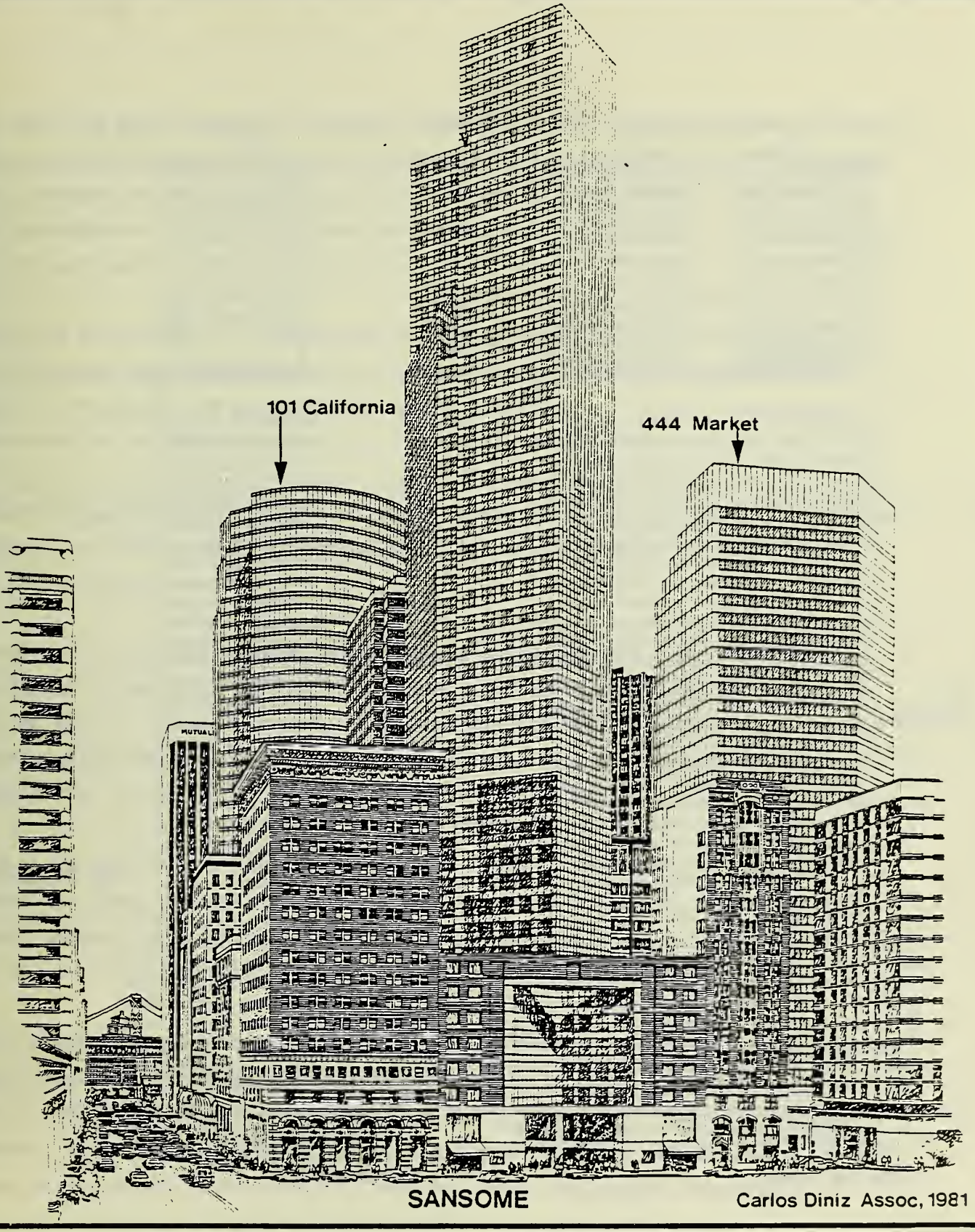


B. Portion of project site facing Sansome Street (the parking lot, 220 Sansome)

Project Area Photographs

Source: EIP, Corp.

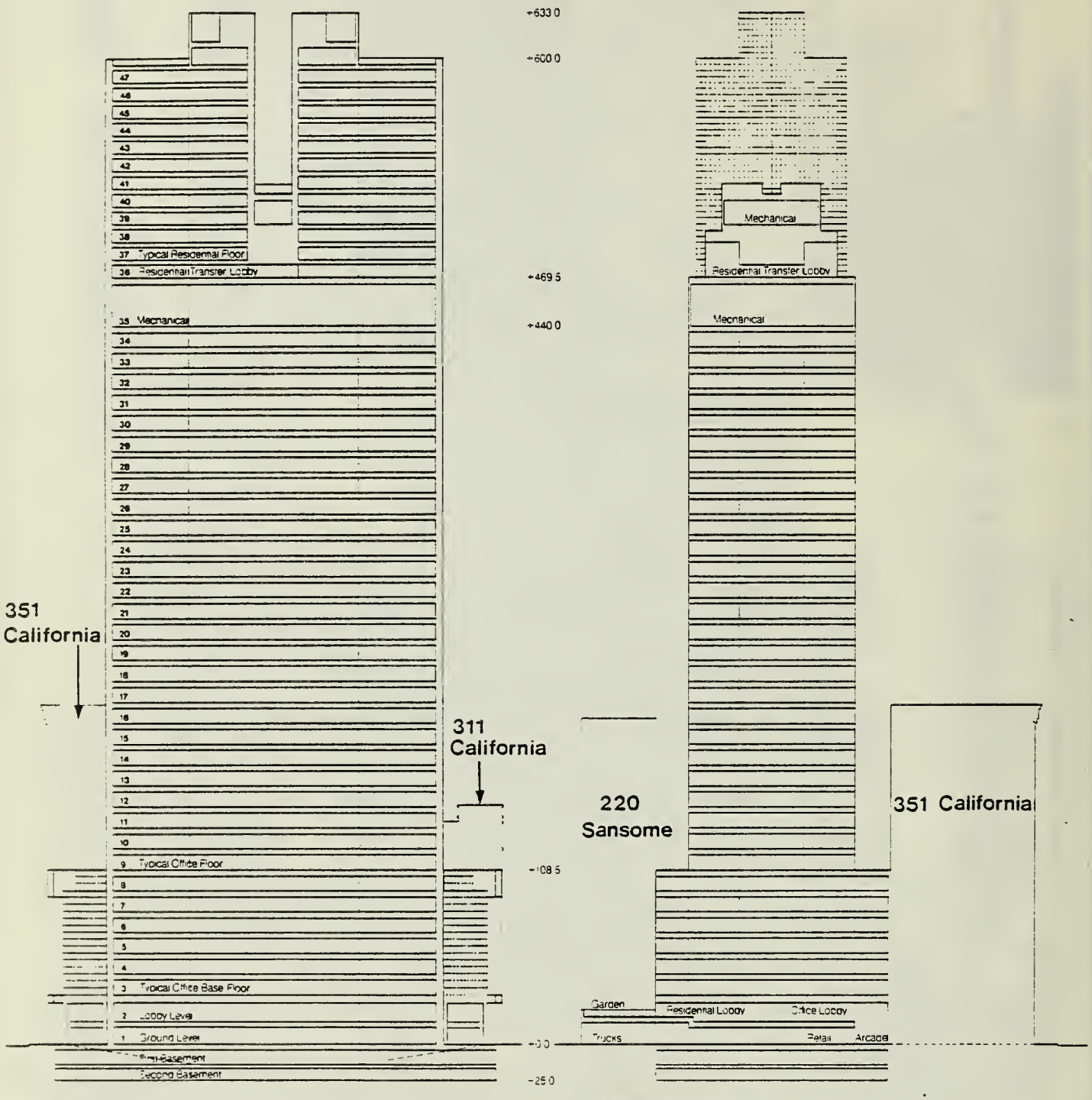
Figure No. 3



Perspective View Looking East, from California Street

Skidmore, Owings & Merrill, Architects

Figure No. 4



Longitudinal Section

Transverse Section

Building Sections

0 20 40 80
Scale Feet

Figure No. 5

to west and would connect to Battery, Sansome, and California Streets (Figure 6). There would be approximately 12,000 useable square feet of retail (e.g. shops and restaurants) space fronting on this arcade. Loading facilities would be accessible on Pine Street, and vehicles would enter the project from Battery Street and exit to Sansome Street.

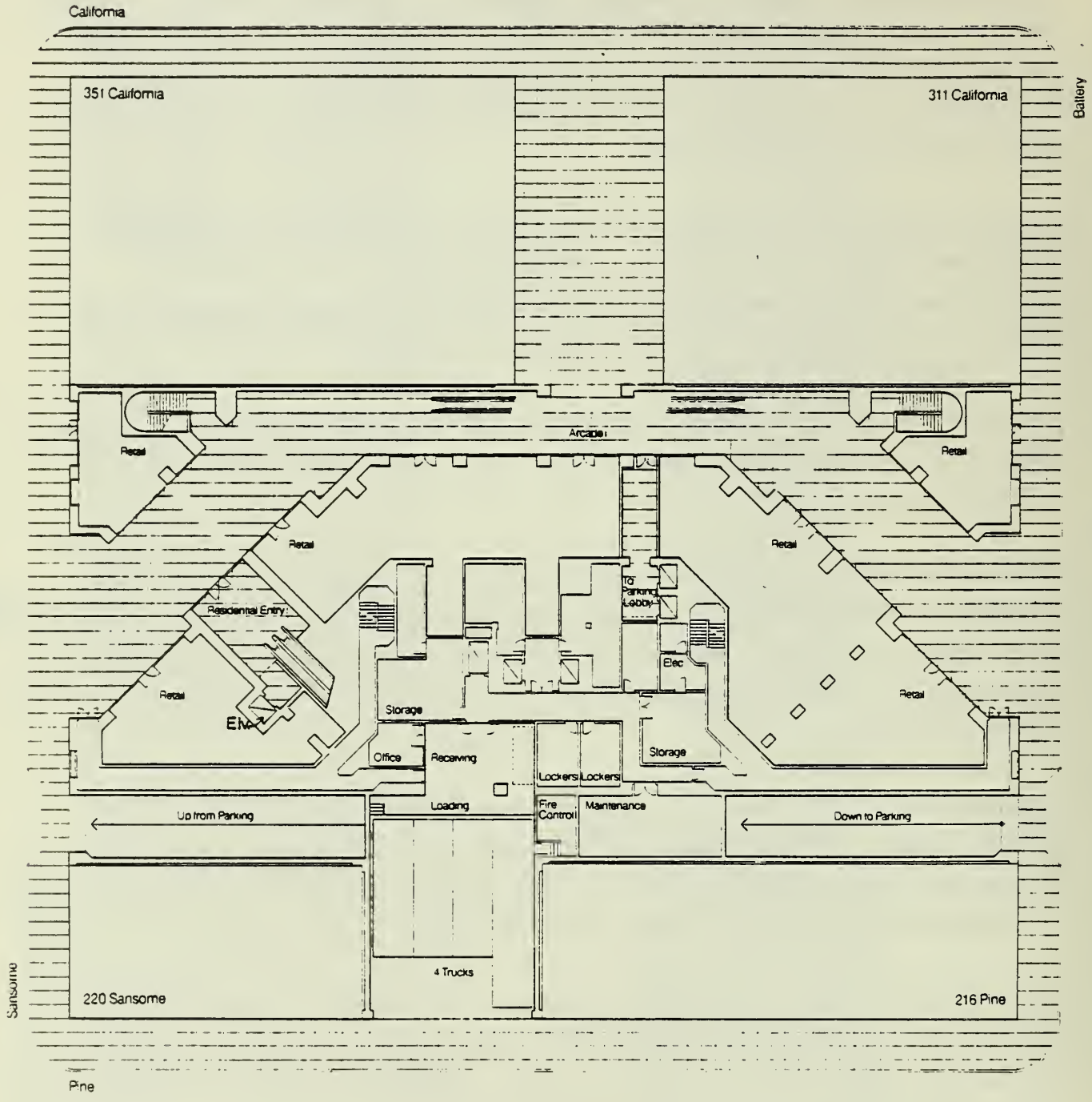
The next six floors are planned for office space and would contain about 34,700 gross square feet per floor. These floors would fill the central part of the block and are designed by the architect to relate in scale to the existing buildings on the four corners of the block.

Above the podium office floors would be 26 office floors composed in a hexagonal shaped plan with a central elevator core. Each floor would contain about 15,200 gross square feet.

Above a full floor of mechanical equipment would be a special floor for the residents in the condominiums to transfer from shuttle elevators from the street level to elevators serving the residential floors exclusively. This floor would also contain some common facilities for the occupants of the residential units.

Beginning on the 36th floor are 12 floors designed for housing units in two separate towers emerging from the office building. Each floor in each tower could contain up to three units for a total of 6 per floor or up to 72 units in the project (about 102,300 gross square feet).

The building is planned to conform to the 600 foot height limit and the office tower would be 100 feet x 204 feet at its widest points. The tower portion, as it emerges above its surroundings, would be sheathed in pale, translucent glass. At the base of the building, the podium would be executed in a combination of stone and glass materials related to the contiguous buildings.



Ground Level Floor Plan

North

0 20 40 80

Scale Feet

Figure No. 6

The floor area ratio (FAR) of the proposed project is about 17:1 (16.94:1, a total of 761,390 square feet). Office FAR would be about 14.44:1 and residential FAR would be approximately 2.5:1. The available FAR for office is 15.2:1 based on the size of the site (44,922 square feet) and development rights transfer of 52,875 square feet which will be discussed in the Environmental Impact Report (EIR).

Private open space requirements of the proposed project would be 2,592 square feet based on City requirements of 36 square feet per unit. For common open space, this requirement would be multiplied by 1.33 for a requirement of 3,447 square feet. The proposed project would provide a total of 3,450 square feet for open spaces in a plaza on the second floor and 2 terraces on the residential transfer floor at the base of the condominium towers (floor 36).

In August 1981, as part of the project, the project sponsor contributed $1,014,000 to the City Housing Authority for the rehabilitation of 450 low-income public housing units in San Francisco. This contribution is designed to help mitigate the potential impacts the 333 California Office Building might directly have on the housing supply in the City.

II. POTENTIAL ENVIRONMENTAL EFFECTS

A. SIGNIFICANT EFFECTS

The proposed project may generate environmental impacts that could be considered significant and will be analyzed in an Environmental Impact Report. Potential environmental effects resulting from the 333 California Building include effects on long-range views, circulation requirements, pedestrian impacts and effects on existing vehicular and transit systems, increase of population (residential and employment) and subsequent demand on the supply of housing in the City, an increase in land use density on the site, cumulative air quality impacts, effects of shadows and wind ratios at street level, energy demand aspects, noise impacts during construction, cumulative effects on public services and utilities, possible effects on groundwater, and change in the archaeological, historical and cultural resources of the project area.

B. INSIGNIFICANT EFFECTS

The proposed 333 California would not have significant environmental effects on several areas which are indicated below. These potential environmental issues will not be addressed in the subsequent EIR.

Noise: After project completion, audible noise levels in the project vicinity would not increase due to compliance with the City noise ordinance. Noise insulation features would be included in the project design to comply with standards of Title 25 of the California Administrative Code.

Public Services and Utilities: The increased demand for public services and utilities generated by the proposed project would not require additional personnel or equipment. The cumulative impacts of the proposed project and other Downtown Office Highrise buildings, however, may have significant impacts on some services and therefore will be discussed in the EIR.

Topography, Soils, and Geology: The proposed 333 California project is not expected to have an impact on the topography, soils, geology or seismicity of the project site, including excavation, grading and spoils.

Hazards: The proposed project would not be affected by hazardous uses or health hazards in the area nor would there be a potential for health hazards.

Biology: The proposed project would have no effect on plant or animal life on the project site or surrounding area.

III. ENVIRONMENTAL EVALUATION CHECKLIST

A. GENERAL CONSIDERATIONS:	Yes	Maybe	No	N/A	Disc.
1. Would the project conflict with objectives and policies in the Comprehensive Plan (Master Plan) of the City?	___	X	___	___	X
2. Would the project require a variance, or other special authorization under the City Planning Code?	X	___	___	___	X
3. Would the project require approval of permits from City Departments other than DCP or BBI, or from Regional, State or Federal Agencies?	___	___	X	___	___
4. Would the project conflict with adopted environmental plans and goals?	___	___	X	___	___

The proposed 333 California project may not comply with some provisions of the San Francisco City and County Comprehensive Plan which will be discussed in the Environmental Impact Report.

The project would require conditional use authorization for bonus floor area, exceptions to bulk limits and planned unit development to permit minor deviations from the provisions of measuring height, open space, rear yard, and loading dock dimensions. The Conditional Use Application would be the subject of a public hearing before the City Planning Commission, after certification of the Final EIR.

Prior to the sale of the residential condominium units, it would be necessary for the project sponsor to obtain approval of an application to subdivide the property pursuant to Section 1303(c) of the Subdivision Code, Chapter XIII of Part II of the San Francisco Municipal Code. This application would be considered at the same time as the Conditional Use Application.

The area for the proposed project is zoned C-3-0, Downtown Office District. Office, retail and residential uses are permitted in this district. The site

is also in the 600-1 Height and Bulk district in which the permitted height is 600 feet.

B. ENVIRONMENTAL IMPACTS:	Yes	Maybe	No	N/A	Disc.
1. Land Use. Would the proposed projects:					
a. Be different from surrounding land uses?	X	___	___	___	X
b. Disrupt or divide the physical arrangement of an established community?	___	___	X	___	X

The project site is located in the center of the City's financial and office district. The site is currently used for office, commercial and parking activities. The surrounding land uses are also office, retail/commercial and short-term vehicle parking. The project would increase the density of office and commercial uses on the site. The retail uses on the ground-level and second floor would be similar to those presently in the project area.

The proposed residential units would constitute a new land use on the block. The underground parking facility would contain about one half the number of parking spaces currently available on the project site.

2. Visual Quality and Urban Design. Would the proposed project:					
a. Obstruct or degrade any scenic view or vista open to the public?	___	X	___	___	X
b. Reduce or obstruct views from adjacent or nearby buildings?	X	___	___	___	X
c. Create a negative aesthetic effect?	___	X	___	___	___
d. Generate light or glare affecting other properties?	___	X	___	___	___

The proposed project would be noticeable from many vistas of the Downtown Skyline and the form of the structure would be identifiable. Some views from buildings adjacent to the project could be partially blocked by the proposed project. Analysis of urban design impacts and of views of the project from various sites in the City (and the Bay and Oakland-Bay Bridge) are necessary and will be included in the EIR. A discussion of light and glare considerations will also be in the EIR.

3. Population/Employment/Housing: Would the proposed project:	Yes	Maybe	No	N/A	Disc.
a. Alter the density of the area population?	X				X
b. Have a growth-inducing effect?		X			X
c. Require relocation of housing or businesses, with a displacement of people, in order to clear the site?	X				X
d. Create or eliminate jobs during construction and operation and maintenance of the project?	X				X
e. Create an additional demand for housing in San Francisco?	X				X

The proposed project would displace employees and business currently located in 333 California, 141 Battery, and 244 Pine Streets. Approximately 1,400 person-years of construction employment could be created by full development of the project. Approximatley 2,500 jobs could be created by the project due to office and retail uses, including maintenance and management of the entire building.

A project of this magnitude could have a growth-inducing effect on other downtown development in the City. The cumulative effects of increased growth in the area will be discussed in the EIR.

The demand for housing generated by the office space of the project would be met in part by the 72 condominium units planned for the top 12 floors of the building and through the rehabilitation of 450 units of low-moderate income housing. The extent to which demand for additional housing units exists will be studied in the EIR.

	Yes	Maybe	No	N/A	Disc.
4. Transportation/Circulation. Would the construction or operation of the project result in:					
a. Change in use of existing transportation systems? (transit, roadways, pdestrian ways, etc.)	X				X
b. An increase in traffic which is substantial in relation to existing loads and street capacity?		X			X
c. Effects on existing parking facilities, or demand for new parking?	X				X
d. Alteration to current patterns of circulation or movement of people and/or goods?	X				X
e. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	X				
f. A need for maintenance or improvement or change in configuration of existing public roads or facilities?		X			
g. Construction of new public roads?			X		

The proposed project would generate an increase in use of MUNI and regional transit as well as additional vehicle trips to and from the project site. The circulation patterns for automobiles and pedestrians may be affected by the proposed project and there may be additional volumes on Pine, Sansome, Battery and California Streets. The proposed project would have about 150 spaces for vehicles in 2 levels of parking. The project-related and cumulative impacts for transportation and parking demand will be analyzed in the EIR.

5. Noise					
a. Would the proposed project result in generation of noise levels in excess of those currently existing in the area? (during construction)	X				X
b. Would existing noise levels impact the proposed use?		X			X
c. Are Title 25 Noise Insulation Standards applicable?	X				X

Project-generated noise levels would be limited to construction noise and, upon completion of the project, noise generated by mechanical equipment associated with the building. The City Noise Ordinance[1] requires that noise from mechanical equipment not exceed 60 dBA at the property line. To meet this requirement, all mechanical equipment for the proposed project would be enclosed and insulated, either in the central core or on upper-level mechanical floors.

Project construction would require approximately 2½ years and involve demolition of buildings, excavation, and construction of the proposed structure. During construction, these activities would temporarily result in noise levels in excess of those existing in the site vicinity. Construction noise impacts will be evaluated in the EIR.

The Environmental Protection Element of the San Francisco Comprehensive Plan contains guidelines for determining compatibility of various land uses within various noise environments. Title 25, Noise Insulation Standards, also applies to the proposed project. The project sponsor has agreed to prepare an analysis of noise reduction requirements and inclusion of noise features in the design of the building. This analysis would ensure that the City Guidelines and Title 25 Standards would be met. No further discussion will be included in the EIR.

The amount of traffic generated by the project during any hour of the day could cause traffic noise levels to be increased by less than 1 dBA.[2] A dBA increase in environmental noise is undetectable by the untrained human ear. A two-level parking garage, primarily for the proposed residential units, is planned for the project. The garage would have fewer spaces than the existing parking facility and fewer cars from the garage would produce less noise on Pine, Sansome, Battery and California Streets.

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[1] San Francisco Noise Ordinance, Section 2909 "Fixed Source Noise Levels," San Francisco Municipal Code, Part II, Chapter VIII, Section I, Article 29, 1972.

[2] dBA is the measurement of sound units of decibels (dB). The "A" denotes the A-weighted scale which simulates the response of the human ear to various frequencies of sound.

6. Air Quality/Climate. Would the proposed project result in:	Yes	Maybe	No	N/A	Disc.
a. Violation of any ambient air quality standard or contribution to an existing air quality violation?	X	___	___	___	X
b. Exposure of sensitive receptors to air pollutants?	___	___	X	___	X
c. Creation of objectionable odors?	___	___	X	___	___
d. Burning of any materials including brush, trees, or construction materials?	___	___	X	___	___
e. Alteration of wind, moisture, or temperature (including sun shading effects), or any change in climate, either locally or regionally?	X	___	___	___	X

Individually, incremental changes in air pollution due to the proposed project would be insignificant; cumulatively, development such as this could increase reported concentration and the frequency of standard violations. Cumulative air quality issues will be evaluated in the EIR.

During the construction phase of the proposed project there would be short-term impacts on air quality. No sensitive receptors (hospitals, convalescent homes, schools, churches, etc.) have been identified in the vicinity of the proposed project.

No objectionable odors are expected to occur from construction or operation of the proposed project.

The project site may be exposed to winds. Although design features included in the project are known to reduce ground-level winds acceleration near buildings, wind tunnel tests of the proposed designs will be performed and then discussed in the EIR.

Since the project would create and cast new shadows on the surrounding street areas, shadow effects will be evaluated in the EIR.

7. Utilities and Public Services. Would the proposed project:	Yes	Maybe	No	N/A	Disc.
a. Have an effect upon, or result in a need for new or altered, governmental services in any of the following?	___	___	X	___	X
fire protection	___	___	X	___	X
police protection	___	___	X	___	X
schools	___	___	X	___	X
parks or other recreational facilities	___	___	X	___	X
maintenance of public facilities	___	___	X	___	X
power or natural gas	___	___	X	___	X
communications systems	___	___	X	___	X
water	___	___	X	___	X
sewer/storm water drainage	___	___	X	___	X
solid waste collection and disposal	___	___	X	___	X

The proposed 333 California project not would be expected to have an adverse impact on the demand for utilities and public services; however, the EIR will address the potential cumulative impact on municipal services by increased development in Downtown San Francisco.

The proposed project would increase the building area of the site and the number of persons using the project area and may increase the fire hazard. The project would, however, incorporate more extensive fire protection measures than most existing buildings in the area to comply with the more stringent code standards now in effect. The project would not require more fire department personnel or equipment; water for fighting fires would be available to the project from both the domestic and high-pressure water systems within the site.[1]

The proposed 333 California project would increase population and property on the site, thereby increasing the opportunity for crime. Appropriate mitigation measures (alarms, adequate lighting in entry ways, closed-circuit camera systems, security personnel, etc.) would be incorporated into the project (see mitigation measures, page 25). Additional personnel or equipment would

[1]Chief Joseph Sullivan, Division of Planning and Research, San Francisco Fire Department, letter communication, 28 June 1981.

not be required by the police department for the project; however, cumulative growth in the area could increase the demand for police services,[1] and will be discussed further in the EIR.

The proposed project is planned for a maximum of 72 condominium units. It is not anticipated by the project sponsor that the project would generate a demand on school services. If any school-age children were to reside at the proposed project site, the San Francisco School District could absorb any additional students.[2]

There are plazas and terraces incorporated into the proposed project design, both for residents and office employees. It is not anticipated that the project would generate demand on public parks or other public recreational facilities in the City or have any direct effect on the maintenance of public facilities.

There would be a net increase in the consumption of energy generated by the proposed project. PG&E does not anticipate difficulty in providing the required amount of natural gas or electricity to the project.[3]

There would be an increase in demand for communication systems generated by the proposed project. No supplier capacity problems exist and Pacific Telephone would not have difficulty providing increased services to the project site.[4]

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[1]Captain Victor Macia, Central Station, San Francisco Police Department, telephone conversation, 30 June 1981. Sergeant Farrell, San Francisco Police Department, telephone conversation, 24 November 1981.

[2]Ed Schuhman, Program Manager, San Francisco Unified School District, telephone communication, 23 June 1981.

[3]Al William, Marketing Representative, Marketing Division, Pacific Gas and Electric Company, telephone communication, 4 August 1981.

[4]Warren D. Dougherty, Planning Pacific Telephone, telephone communication, 23 June 1981.

The project would result in a net increase of water consumption at the site of approximately 304,000 gallons per day (GPD). Eight-inch water mains serve the project site on California and Pine Streets. A 6-inch diameter main is located in Sansome and Battery Streets. These are of adequate size to serve the demands of the proposed project, and the San Francisco Water Department does not anticipate any difficulty in the supply of water to the project.[1]

The amount of wastewater generated would be about the same as the water consumed. There are 3-foot by 5 foot brick sewers on California, Battery and Pine Streets and a 8-foot 6-inch main on Sansome Street which would be adequate to handle increased surface flows as well as storm drainage. It is not anticipated that the City would have any difficulties in providing services to the site.[2]

The proposed 333 California project would generate a net increase in solid waste. The Golden Gate Disposal Company would remove solid waste and does not anticipate problems in meeting the demand generated by the proposed development.[3]

8. Biology	Yes	Maybe	No	N/A	Disc.
a. Would there be a reduction in plant and/or animal habitat or interference with the movement of migratory fish or wildlife species?	___	___	X	___	X
b. Would the project affect the existence or habitat of any rare, endangered or unique species located on or near the site?	___	___	X	___	___
c. Would the project require removal of mature scenic trees?	___	___	X	___	___

The proposed project site is currently occupied by a paved parking lot and three office buildings. No plant or animal habitats exist on the site.

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[1] J.E., Kenck, manager, San Francisco Water Department City Distribution Division, letter communication to EIP, 13 July 1981.

[2] Nathan Lee, San Francisco Clean Water program, telephone communication, 23 June 1981.

[3] F.Garbarino, office manager, Golden Gate Disposal Company, telephone conversation, 23 June 1981.

9. Land. (topography, soils, geology) Would proposed project result in or be subject to:	Yes	Maybe	No	N/A	Disc.
a. Potentially hazardous geologic or soils conditions on or immediately adjoining the site? (slides, subsidence, erosion, and liquefaction)	___	X	___	___	X
b. Grading? (consider height, steepness and visibility of proposed slopes; consider effect of grading on trees and ridge tops)	X	___	___	___	X
c. Generation of substantial spoils during site preparation, grading, dredging or fill?	___	X	___	___	X

The proposed project site is essentially level at approximately Elevation +5 feet, San Francisco Datum (SFD).[1] According to the Phase 1 Geotechnical Study[2] the underlying sediments consists of 20 feet of artificial fill and native sand overlying 10 to 20 feet of soft clay (Younger Bay Mud). These materials are underlain by 35 to 45 feet of dense sand, 20 to 30 feet of stiff clay (Older Bay Mud), and a thick layer of dense to very dense sand which extends to bedrock at approximately -220 feet SFD. Groundwater occurs between -8 and -10 feet SFD.[2] A continuous layer of clay exists within the upper dense sand at -55 feet SFD.[2]

The site area would experience very strong to violent groundshaking during a major seismic event along any of the 4 active fault zones which surround the City.[3] The site is in an area of potential liquefaction hazard.[3] About 51,000 cubic yards (77,000 tons) of material would need to be removed to excavate the 2 basement levels to -25 feet SFD.[4]

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[1] San Francisco Datum is approximately 8.6 feet above mean sea level.

[2] Basore, C., Woodward-Clyde Consultants, Phase 1, Geotechnical Study DAON/Dollar Project, San Francisco, 21 July, 1981, page 2.

[3] URS/John A. Blume and Associates, San Francisco Seismic Safety Investigation, San Francisco, June 1974, Figures 3 and 5.

[4] Calculated from site plans submitted by S.O.M. Architects.

During excavation, shoring and bracing would be necessary to minimize movement of adjacent structures and strees. Interlocked sheet piling would form a relatively impervious shoring allowing groundwater to be maintained at its current level outside the excavation.[1] The interior of the excavation could be kept dry by sump pumping rather than through the use of dewatering wells, thereby preventing consolidation (settling) of the Bay Mud.[2]

The Preliminary Pile Foundation Evaluation[3] indicates that 14-inch square prestressed concrete piles jetted[4] to a depth of 50 feet below the second basement level would develop allowable uplift and downward capacities to support the proposed tower. The piles would be driven into the dense sand below the Young Bay Mud. This pile design assumes that settlement caused by the consolidation of the Older Bay Mud layer at about -80 feet SFD would not be excessive. If it is determined that a settlement hazard exists, an alternative pile design would be developed using steel H-piles or open-ended steel pipe piles driven to -130 feet SFD into the dense sand below the Older Bay Mud. Settlement conditions will be evaluated during the Phase 2 geotechnical study (foundation design) for the site.

The proposed design would place most of the structures on continuous pile caps. The core of the building will be set on a mat foundation. The building frame would be of ductile steel and the structure would be built to UBC 1979 Seismic Level Design.[5] Conforming to current seismic safety standards of the San Francisco Building Code will reduce or eliminate the groundshaking hazard at the site.

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[1] Basore, C., Woodward-Clyde Consultants, Phase 1, Geotechnical Study DAON/Dollar Project, San Francisco, 21 July 1981, page 3.

[2] Hillebrandt, D.H., (C.E. 16338) Don Hillebrandt Associates, Preliminary Geotechnical Investigation, Proposed Welsh Commons, San Francisco, 28 September 1981, pages 3 and 4.

[3] Basore, C., Woodward-Clyde Consultants, Preliminary Pile Foundation Evaluation DAON/Dollar Project, San Francisco, 2 September 1981, pages 1 and 2.

[4] Jetting: the process of predrilling holes for piles by using a directed, forceful stream (jet) of drilling mud, air or water. Glossary of Geology, 1980.

[5] Navin Amin, Civil Engineer, S.O.M. Architects, telephone conversation, 9 June 1981.

Since all existing fill would be removed from the site during excavation for the basement levels, the potential for liquefaction is considered to be practically non-existent.

Building rubble would be removed from the site via Highway 480 to the landfill site near Hunters Point or some unspecified site south of the City.[1] If the fill site were to be the Bay, a permit would be required from the Bay Conservation and Development Commission and would require environmental evaluation. Existing sand fill excavated from the site would be sold for local use.[1] No further discussion of topography, soils, geology and seismicity will be covered in the EIR.

10. Water. Would the proposed project result in:	Yes	Maybe	No	N/A	Disc.
a. Reduction in the quality of surface water?	___	___	X	___	___
b. Change in runoff or alteration to drainage patterns?	___	___	X	___	___
c. Change in water use?	X	___	___	___	X
d. Change in quality of public water supply or in quality or quantity (dewatering) of groundwater?	___	___	X	___	___

Water use for the proposed project is estimated to be approximately 304,000 gallons per day (GPD).[2] During construction, watering would be necessary to reduce dust. The site currently is impermeable due to coverage of buildings and the parking lot. It is not anticipated that drainage patterns would change, since the site would be impermeable when construction is completed.

The Phase 2 geotechnical study (foundation design) to be prepared by Woodward-Clyde Consultants would contain an analysis of construction effects on groundwater. Since dewatering will not be necessary outside the excavation, no change in groundwater is anticipated.[3]

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[1] Kurt Smith, Project Supervisor, Dinwiddie Construction Company, telephone conversation, 13 October 1981.

[2] See Section 7, Utilities and Public Services, page 18 of this study.

[3] See Section 9, Land, page 21 of this study.

11. Energy/Natural Resources. Would the proposed project result in:	Yes	Maybe	No	N/A	Disc.
a. Any change in consumption of energy?	X				X
b. Substantial increase in demand on existing energy sources?		X			X
c. An effect on the potential use, extraction, conservation or depletion of a natural resource?			X		

The proposed 333 California project would generate an increase in energy consumption. Transportation related fossil fuel consumption and specific levels of consumption of electricity and natural gas will be evaluated in the EIR. No existing active solar energy collection installations would be affected as none are located in the immediate area north of the project site. No other natural energy resources would be directly affected. The project sponsor has indicated that the project would comply with minimum energy requirements of Title 24 of the California Administrative Code.

12. Hazards. Would the proposed project result in:	Yes	Maybe	No	N/A	Disc.
a. Increased risk of explosion or release of hazardous substancess (e.g., oil, pesticides, chemicals or rediation), in the event of an accident, or cause other dangers to public health and safety?			X		
b. Creation of or exposure to a potential health hazard.			X		
c. Possible interference with an emergency response plan or emergency evacuation plan?			X		

13. Cultural. Would the proposed project:	Yes	Maybe	No	N/A	Disc.
a. Include or affect a historic site, structure, or building?		X			X
b. Include or affect a known archaeological resource or an area of archaeological resource potential?		X			X
c. Cause a physical change affecting unique ethnic or cultural values?			X		

The J. Harold Dollar Building (341 California on the northwest corner of the block), the Robert Dollar Building (301-311 California on the northeast corner of the block) and the American International Building (200-206 Sansome on the southwest corner of the block) have been identified by the City Planning Survey and the Foundation for San Francisco's Architectural Heritage as having architectural and/or historical merit. These structures would not be part of the the proposed project.

The proposed project is designed to remain compatible both in proportion and in facade treatment with the character of the four existing buildings on each corner of the Dollar Block. Archaeological, historical and cultural resources will be evaluated in the EIR.

C. MITIGATION MEASURES:	Yes	No	Disc.
a. Are mitigation measures included in the project?	X	__	X
b. Are other mitigation measures available?	X	__	X

Mitigation measures have been included in the project. Other mitigation measures will be developed and analyzed in the EIR. Following are measures already agreed upon by the project sponsor.

1. Provision of 150 on-site parking spaces to accommodate people using residential units and short-term visitors to the site.
2. For the office and commercial/retail space the project sponsor would encourage efforts to adjust working hours, providing ride-sharing coordination and providing preferential parking for van-pool and car pool vehicles.
3. Noise insulation features would be used as required in the building design to comply with Title 25, Noise Insulation Standards. All mechanical equipment for the proposed would be enclosed and insulated either in the central core or on upper-level mechanical floors.
4. Project sponsor would comply with all requirements of the San Francisco Noise Ordinance, including limited noise emissions from power construction equipment to 80 dBA at a distance of 100 feet and including section 2909 "Fixed Source Noise Levels."

5. The project sponsor and project contractor would meet with the Bureau of Engineering to determine the necessary feasible measures to reduce noise during piledriving on the project site.
6. The project would provide internal security measures, such as a closed-circuit television system, security guard, well-lighted entryways, alarm systems, an emergency communication system, and power supply and water supply, to minimize the need for police services and to reduce hazards to building occupants during an earthquake or fire.
7. During excavation, unpaved demolition and construction areas would be wetted at least twice a day to hold down dust.
8. The project would incorporate low-flow faucet and toilet fixtures to reduce water consumption and wastewater. The office retail and residential maintenance areas would be equipped with trash compactors to reduce the volume of solid waste requiring storage and transport.
9. Whenever possible, office suites would be equipped with individualized lighting switches, time clock operation, and fluorescent lights to conserve electrical energy.
10. Should evidence of cultural or historical artifacts of significance be found during project excavation, the environmental review officer and the President of the Landmarks Preservation Advisory Board would be notified. The project sponsor would select an archaeologist to help the Office of Environmental Review determine the significance of the find and whether feasible measures, including appropriate security measures, could be implemented to preserve or recover such artifacts. The Environmental Review Officer would then recommend specific mitigation measures, if necessary, and recommendations would be sent to the state Office of Historic Preservation. Excavation or construction that might damage the discovered culture resources would be suspended for a maximum of 4 weeks to permit inspection, and recommendation for retrieval, if appropriate.
11. A detailed foundation structural design study would be done for the building by a license structural engineer and a geotechnical consultant. The project sponsor would follow recommendations of these studies during final design and construction of the project.

D. ALTERNATIVES:	Yes	No	Disc.
a. Were alternatives considered:	X	__	X

Several alternatives to the proposed project were under consideration:

1. The no-project alternative would retain the existing structures on the site: the parking lot, 333 California Street, 244 Pine Street and 141 Battery Street.
2. The project sponsor examined the possibility of retaining the existing 333 California Building and providing an entrance corridor to the proposed project on the ground floor of the existing building.
3. The proposed project with no residential units under the regulations of the interim controls and the maximum amount of residential space was examined in two separate alternatives by the project sponsor.
4. This alternative was designed to comply with the recommendations set forth in Guiding Downtown Development, which entailed a lower height of the building and a greater proportion of residential units to office space (36% residential and 64% office). A sub-alternative was considered that planned for all residential units to be located off the project site.
5. The project sponsor examined two variations of parking space and loading dock facilities on the ground floor and 1st basement levels.

The EIR will contain further discussion of project alternatives.

MANDATORY FINDINGS OF SIGNIFICANCE:	Yes	No	Disc.
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal, or eliminate important examples of the major periods of California history or prehistory?	___	X	___
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	___	X	___
3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects?)	X	___	___
4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?	___	X	___
5. Is there a serious public controversy concerning the possible environmental effect of the project?	___	X	___

On the basis of this initial evaluation:

I find the proposed COULD NOT have a significant effect ____on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.

I find that although the proposed project could have ____a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures, numbers , in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant ✓ effect on the environment, and a ENVIRONMENTAL IMPACT REPORT is required.

Robert W. Passmore
Assistant Director-Implementation

for

Dean Macris
Director

Date: 12/2/81

DISTRIBUTION LIST

REGIONAL AGENCIES

Association of Bay Area Governments
Hotel Claremont
Berkeley, CA 94705

Bay Area Air Quality
Management District
939 Ellis Street
San Francisco, CA 94109
Attn: Irwin Mussen

Bay Area Rapid Transit District
800 Madison Street
Oakland, CA 94607

Golden Gate Bridge Highway &
Transportation District
P.O. Box 9000, Presidio Sta.
San Francisco, CA 94129

Metropolitan Transportation
Commission
Hotel Claremont
Berkeley, CA 94705

San Mateo County Transit District
400 South El Camino Real
San Mateo, CA 94402

AC Transit District
508 16th Street
Oakland, CA 94612

CITY AND COUNTY OF SAN FRANCISCO

Landmarks Preservation Advisory Board
100 Larkin Street
San Francisco, CA 94102
Attn: Jonathan Malone
Philip P. Choy
Elizabeth de Losada
David M. Harley
Carolyn Klemeyer
Jean E. Kortum
Patrick McGrew
Ann Sabiniano
Walter Sontheimer
John Ritchie

Water Department
Distribution Division
425 Mason Street
San Francisco, CA 94102
Attn: George Nakagaki

San Francisco Fire Department
260 Golden Gate Avenue
San Francisco, CA 94102
Attn: Joseph Sullivan, Chief
Division of Planning & Research

San Francisco Police Department
850 Bryant Street
San Francisco, CA 94103
Attn: Cornelius Murphy, Chief

San Francisco Department of
Public Works
Traffic Engineering Division
460 McAllister Street
San Francisco, CA 94102
Attn: Scott Shoaf

San Francisco MUNI
Planning Division
949 Presidio Avenue, #204
San Francisco, CA 94115
Attn: Susan Chelone

Bureau of Engineering
Mechanical Section
45 Hyde, #222
San Francisco, CA 94102
Attn: Ray Danehy

San Francisco City
Planning Commission
100 Larkin Street
San Francisco, CA 94102
Attn: Lee Woods
Toby Rosenblatt
Susan Bierman
Roger Boas
Norman Karasick
Jerome Klein
Yoshio Nakashima
Richard Sklar
Eugene Kelleher
C. Mackey Salazar

Public Utilities Commission
949 Presidio Avenue
San Francisco, CA 94115
Attn: Flint Nelson

GROUPS AND INDIVIDUALS

AIA
San Francisco Chapter
790 Market Street
San Francisco, CA 94102

Building Owners & Managers
690 Market Street
San Francisco, CA 94104
Attn: Elmer Johnson

Bay Area Council
348 World Trade Center
San Francisco, CA 94111

Building Service Employees Union
Local 87
240 Golden Gate Avenue
San Francisco, CA 94102

Charles Hall Page & Assoc.
364 Bush Street
San Francisco, CA 94102

Downtown Senior Social Services
295 Eddy Street
San Francisco, CA 94102

Downtown Association
582 Market Street
San Francisco, CA 94102
Attn: Lloyd Pflueger, Mgr.

Environmental Science Assoc.
1291 E. Hillside Blvd.
Foster City, CA 94404

The Foundation for San Francisco's Architectural Heritage
2007 Franklin Street
San Francisco, CA 94109

Gray Panthers
944 Market Street
San Francisco, CA 94102
Attn: W. Nunnally

Charles Gill
315 Ivy Street
San Francisco, CA 94102

Joseph Coriz
2853 22nd Street
San Francisco, CA 94110

Gruen, Gruen & Associates
564 Howard Street
San Francisco, CA 94105

Heller, Ehrman, White & McAuliffe
44 Montgomery Street, 32nd fl.
San Francisco, CA 94104
Attn: Richard Millard

Mr. Gerald Owyang
1517 Reed Avenue #2
San Diego, CA 92109

Mrs. G. Bland Platt
339 Walnut Street
San Francisco, CA 94118

Sue Hestor
4536 20th Street
San Francisco, CA 94102

Junior Chamber of Commerce
251 Kearny Street
San Francisco, CA 94108

Friends of the Earth
124 Spear Street
San Francisco, CA 94105
Attn: Connie Parrish

League of Women Voters
12 Geary Street, Room 605
San Francisco, CA 94108

Legal Assistance to the Elderly
944 Market Street
San Francisco, CA 94102

Bill McKee
600 Montgomery Street
San Francisco, CA 94102

San Francisco Beautiful
41 Sutter Street
San Francisco, CA 94104
Attn: Mrs. H. Klussman, Pres.

San Francisco Building and Construction Trades Council
400 Alabama Street, Room 100
San Francisco, CA 94110
Attn: Stanley Smith

San Francisco Chamber of Commerce
456 California Street
San Francisco, CA 94102
Attn: Richard Morten

San Francisco Ecology Center
13 Columbus Avenue
San Francisco, CA 94111

San Francisco Forward
690 Market Street
San Francisco, CA 94104
Attn: Frank Noto

San Francisco Labor Council
3058 16th Street
San Francisco, CA 94103
Attn: Bernard Speckman

San Francisco Planning and
Urban Renewal Association
312 Sutter Street
San Francisco, CA 94108

San Francisco Convention and
Visitors Bureau
1390 Market Street, #260
San Francisco, CA 94102
Attn: George D. Kirkland, Ex.Dir.
D. Hess, General Mgr.

San Francisco Tomorrow
728 Montgomery Street, Room 34
San Francisco, CA 94111
Attn: Suzanne Smith

San Franciscans for
Reasonable Growth
9 First Street
San Francisco, CA 94105
Attn: Carl Imparato

John Sanger & Associates
2340 Market Street
San Francisco, CA 94114

Kent E. Soule
1180 Filbert Street, #204
San Francisco, CA 94109

Paul Thayer
1033 Stanyan Street
San Francisco, CA 94117

Timothy A. Tosta
333 Market Street, #2230
San Francisco, CA 94105

Steven Weicker
899 Pine Street, #1610
San Francisco, CA 94108

Jeff Vance
Campeau Corp. of California
681 Market Street
San Francisco, CA 94105

Senior Escort Program
South of Market Branch
814 Mission Street
San Francisco, CA 94103
Attn: Leslie Halford

Sierra Club
530 Bush Street
San Francisco, CA 94104
Attn: Becky Evans

Tenant & Owners Development Corp.
177 Jessie Street
San Francisco, CA 94105
Attn: John Elberling

PROPERTY OWNERS IN
PROJECT VICINITY

Bank California Comptroller
400 California
San Francisco, CA 94104

Western Title Insurance Company
350 Bush Street
San Francisco, CA 94104

William Savage
P.O. Box 44000
San Francisco, CA 94144

IMA Financial Corp.
381 Bush Street
San Francisco, CA 94104

First Development Corp.
233 Sansome Street
San Francisco, CA 94104

Prosperity Realty
c/o Shanghai Bank
231 Sansome Street
San Francisco, CA 94104

Johnson Gardinar
221 Sansome Street
San Francisco, CA 94104

Tischer Company
201 Sansome Street
San Francisco, CA 94014

Liberty Mutual
175 Berkeley
Boston, MA 02117

Bressie and Company
220 Sansome Street
San Francisco, CA 94104

Dalum Corporation
P.O. Box 872
Hong Kong BCC

Industrial Indemnity Co.
Madison Ave. at Canfield Rd.
Morristown, NJ 07960

Pacific Insurance
100 Pine Street
San Francisco, CA 94111

F.S. Tom
838 Grant Avenue
San Francisco, CA 94106

Wells Fargo Mgt.
464 California Street
San Francisco, CA 94104

MEDIA

San Francisco Chronicle
925 Mission Street
San Francisco, CA 94103
Attn: Marshall Kilduff

San Francisco Examiner
110 5th Street
San Francisco, CA 94103
Attn: Gerald Adams

San Francisco Bay Guardian
27000 19th Street
San Francisco, CA 94110
Attn: Patrick Douglas

The Sun Reporter
1366 Turk Street
San Francisco, CA 94115

San Francisco Progress
851 Howard Street
San Francisco, CA 94103
Attn: Mike Mewhinney

APPENDIX B

ARCHITECTURAL/HISTORICAL REPORT ON THE 333 CALIFORNIA PROJECT

Prepared for Environmental Impact Planning Corporation
by Sally B. Woodbridge, Architectural Historian
5 August 1981

The Robert Dollar and J. Harold Dollar Buildings, the Bank of California, the Newhall Building, the former John Hancock Building, the California First Bank Building, the Cahill Building, and the Great Western Savings Building form the architectural/historical context of the proposed 333 California project (Fig.A-1).

Because the buildings date from 1907 to 1977, there is no particular historical integrity to the block, nor is there a consistent architectural treatment or styling. Even among the Bank of California (1907), the Newhall Building (1910, 1917), and the 2 Dollar buildings (1919 and 1920), all built in the historical period of more than 50 years ago, no one style predominates.

Therefore, in the opinion of Sally Woodbridge, architectural historian, the portion of the proposed new structure that would replace part of the facade of the Robert Dollar Building, the 1922 or 1923 addition, would have no adverse effect on the existing architectural/historical merits of the project site area.

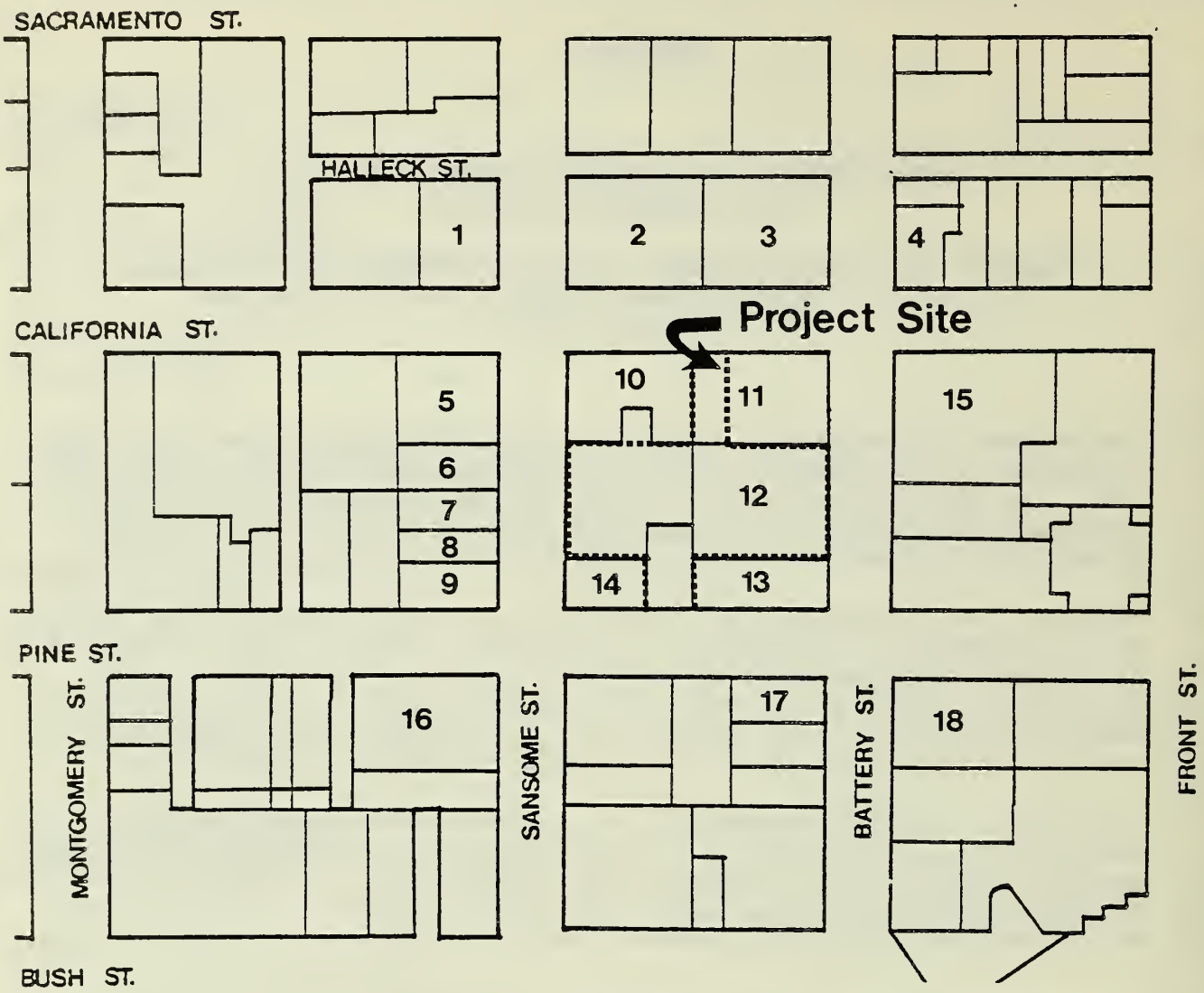
Robert Dollar and J. Harold Dollar Buildings

The Robert Dollar Building and the J. Harold Dollar Building are described in Splendid Survivors [1] as follows:

> Robert Dollar Building:
>
> "Originally designed in 1910 by W.S. Schmolle as a 5-story reinforced concrete structure, this building was greatly enlarged and entirely remodeled by Charles McCall in 1919 as the headquarters building of the Robert Dollar Steamship Lines. It was one of the first big buildings in the city to be constructed after

---

[1] Charles Hall Page & Associates, Inc., Splendid Survivors, San Francisco's Downtown Architectural Heritage, Michael R. Corbett, Editor, prepared for The Foundation for San Francisco's Architectural Heritage, 1979.



		Heritage Survey Rating	DCP Survey Rating
1.	Bank of California	A	-
2.	California First Bank	-	-
3.	Cahill Building	-	-
4.	Newhall Building	A	3/4
5.	Great Western Savings	-	-
6.	Firemans Fund Annex	B	-
7.	T.C. Kierulff Building	B	-
8.	217-221 Sansome	C	-
9.	Royal Insurance Building	A	3/3
10.	J. Harold Dollar	B	-
11.	Robert Dollar	B	-
12.	R. Stanley Dollar	C	-
13.	Liberty Mutual	C	-
14.	American International Bldg	B	-
15.	John Hancock	-	-
16.	Pacific Coast Stock Exchange	A	3/5
17.	Donahoe Building	B	-
18.	Lev. Strauss Company	B	-

Buildings in the Vicinity of the Proposed Project

North

Figure No. A-1

World War I and was identified by the Architect and Engineer, as inaugurating the boom that carried into the 1920s. The building is a three-part vertical block with Gothic references in its ornamentation. The terra cotta cladding of its predominately steel frame includes representations of the company flag, marine life, and ship details. Despite the removal of its cornice, the building is an important element in a nearly continuous wall of older structures on California Street. The ground floor banking rooms of the Bank of Nova Scotia (Parkin Architects) and the Bank of Montreal (Hugh Stubbins and Rex Allen) were stylishly remodeled in the early 1970s."

J. Harold Dollar Building:

"Built as the Balfour Building and now known as the J. Harold Dollar Building as part of the fine group of the Dollar Lines buildings on this block. Designed by George Kelham with a handsome brick facade over a carved limestone base in a two-part vertical composition. Ornamentation is restrained Renaissance/Baroque outside and in the vaulted ground floor elevator lobby. The dark textured brick wall makes a superb material for street facades on both California and Sansome Streets. Steel frame construction."

Both buildings are given a B rating in the book, which in the opinion of Sally Woodbridge, architectural historian, is reasonable. The Robert Dollar Building features Gothic motifs and the J. Harold Dollar Building has classical detail. The J. Harold Dollar Building's first floor belt cornice is 2 stories higher than that of the Robert Dollar Building. These differences in style would not be as noticeable if the 2 buildings were separated as proposed in the Skidmore, Owings and Merrill design for the new building's entrance facade.

The north side of California Street and the 2 intersections of Battery and California and Sansome and California comprise the most important historical/architectural area to be affected by the proposed new building.

The former John Hancock Building (1959) by Skidmore, Owings & Merrill on the southeast corner of Battery and California is one of the City's most distinguished modern office towers. As stated in Splendid Survivors, "the building...was given a great deal of publicity when it was completed for its success as a Modern design that took special care to respect its environment."

On the northeast corner of the Battery and California intersection, the Newhall Building (1910, 1917, by Lewis Hobart) is a lavishly ornamented structure in red brick and cream terra cotta in a Renaissance/Baroque style. The remodeled ground floor has an arcade treatment which is harmonious with the the former John Hancock Building.

The least distinguished building architecturally is the Cahill Building on the northwest corner of Battery and California. It was designed by Meyer and Evers in 1946. The styling is vaguely Classical, but stripped of all but the most essential rhythms of pier and spandrel, with minimal detail.

In general, the proportions and heights are compatible for all the buildings at the intersection of Battery and California Streets.

The buildings occupying the corners of the Sansome and California Streets intersection have little compatibility of height, scale, or architectural style.

The only one that has both historical and architectural merit, in addition to the J. Harold Dollar Building, is the 1907 Bank of California Building by Bliss & Faville on the northwest corner of the intersection. This building is widely acknowledged as "the finest banking temple in a City of banking temples," as expressed in Splendid Survivors, in which it is given an A rating. The 1-story, Classic Revival temple-form structure with colonnades on both street facades also is a City landmark.

Opposite this building, on the northeast corner, is the most recent building on the intersection, the California First Bank Building of 1977, designed by Skidmore, Owings & Merrill. A handsome and distinctive design, this structure replaced an important landmark, the Alaska Building, from which it retained some of the the walrus heads as decorative memorials near the bank's new entrance and at the rear of the building. The 1977 multi-story office tower breaks the height line of the intersection as does the 1968 Great Western Savings office tower on the southwest corner by John Carl Warnecke. This latter tower is a curtain-walled structure with projecting vertical bays sheathed in dark glass.

The buildings planned for demolition to make way for the proposed project on Pine and Battery (R. Stanley Dollar Building and 244 Pine Street) do not have any particular historical or architectural merit. The R. Stanley Dollar Building, 111-141 Battery, is given a C rating in Splendid Survivors.

The building adjacent to the proposed project on the northeast corner of Pine Street, The American International Building, was constructed in 1927 and is given a B rating. This structure, originally known as the Insurance Center Building, is a "slender tower in a three part vertical composition with Gothic ornamentation."

The Liberty Mutual Building on the northwest corner of Pine and Battery, originally built in 1907 and remodeled in 1939 and 1973-1974, is given a C rating. In summary, it is the opinion of Sally Woodbridge, architectural historian, that the 333 California Street project would not adversely impact the architectural/historical resources of the area.

The following supplement to this report has been prepared by EIP:

The Department of City Planning 1976 Architectural Inventory lists 4 structures of significance that would face the proposed 333 California Building. Appendix C, page A-47, describes the rating scale. The following structures located on California and Sansome Streets across from the project site are listed on the 1976 Architectural Inventory.

Building	Address	Rating
Newhall Building	260 California (northeast corner of Battery and California)	3/4*
Royal Insurance	201 Sansome (northwest corner of Pine and Sansome)	3/3
Pacific Coast Stock Exchange	301 Pine Street	3/5

*The survey rating is comprised of 2 numbers e.g. 3/4. The first number reflects only the exterior architectural quality of the building; the second reflects both the architecture and the building as viewed in its setting. See Appendix C, page A-47 for a description of the rating scale.

All of the buildings on Sansome facing the project site, except for Great Western Savings at 425 California, are rated in Heritage's Survey. Fireman's Fund Insurance Company Building (233-241 Sansome) originally was built as an annex to the Fireman's Fund Building where Great Western Savings now stands. The T.C. Kierulff Building at 231 Sansome is described as a "reinforced concrete office building in a 2-part vertical composition with English ornamentation." Both buildings are given a B rating in Splendid Survivors. A rating of C is given to the 217-221 Sansome Street Building which has ornamentation of the Renaissance/Baroque.

Located at the northwest corner of Sansome and Pine is the Royal Globe Insurance Company built in 1907. Splendid Survivors describes this building:

> One of the richest of all downtown designs in its use of color, materials, and ornamentation; it also is an important building at a major corner and an integral part of the Pine and Sansome streetscapes. The building is in a three part vertical composition. Its 18th century English ornament is executed in white marble, red brick, and green and white terra cotta. The base, identical to a contemporary company building in New York, includes an extremely fine carved marble clock over the entrance with a lion and a unicorn. Doors in the elevator lobby are from a 17th century Italian palazzo. The recent replacement of a heavy upper level cornice molding with a copper substitute was an ingenious solution worthy of the generation of architects who designed the post-fire downtown with less interest in literalness than in effect. When the copper weathers to green it will pick up the existing green terra cotta highlights and amplify the rich play of colors which distinguishes this building. All these original exterior materials were brought from the East Coast.

The Pacific Coast Stock Exchange is located on the southwest corner of Sansome and Pine Streets. The structure originally was built in 1915 as the U.S. Treasury. In 1930 Miller and Pfleuger converted the building and constructed the adjacent office tower at 155 Sansome. As stated in Splendid Survivors:

> The old Treasury building was redesigned by adding massive corners to the front facade terminating the existing Doric colonnade, adding a massive attic wall above the existing cornice, altering the fenestration of end walls, and placing two colossal sculptural groups by Ralph Stackpole on pedestals in front of the building. In composition, it retained the traditional form of an enframed pavilion with end bays, an attic, and a base. The interior space was left as a single great hall with new floor furnishings and a louvered screen under the skylight. The office tower behind was designed in a traditional three part vertical composition with a giant order in the capital. Limited exterior ornamentation in a blend of classical and Moderne styles is focused in a sculptural group over the door.

The Royal Globe Insurance Company and Pacific Coast Stock Exchange are both rated "A."

Located on the southwest and southeast corners of Battery and Pine are the Donahoe Building and Levi Strauss Company Building, respectively. Both are given ratings of B. The Donahoe Building is a 2 part vertical block with Renaissance/Baroque ornamentation. The Levi Strauss Company Building originally was built as two adjacent structures. As stated in Splendid Survivors, the existing building is a "three part vertical block in composition, with Renaissance/Baroque references in the ornamentation."

APPENDIX C: ARCHITECTURAL EVALUATION SYSTEMS

The architectural ratings discussed in the text of this report represent the results of 2 separate surveys, each of which is discussed below.

SAN FRANCISCO DEPARTMENT OF CITY PLANNING SURVEY

Between 1974 and 1976, the San Francisco Department of City Planning conducted a citywide inventory of architecturally significant buildings. An advisory review committee of architects and architectural historians assisted in the final determination of ratings for the 10,000 buildings which were entered in an unpublished 60-volume record of the inventory. The rated buildings have been represented on a set of color-coded maps which identify the location and relative significance of each building surveyed. The maps are available for public inspection at the Department of City Planning.

The inventory assessed the architectural significance of the surveyed structures from the standpoint of overall design and particular design features. Both contemporary and older buildings were included, but historical associations were not considered. Each building was numerically rated according to its overall architectural significance. The ratings ranged from a low of "0" to a high of "5". Factors considered included architectural significance, urban design context, and overall environmental significance. The architectural survey resulted in a listing of the best 10% of San Francisco's buildings. In the estimation of the inventory participants, buildings rated "3" or better represent approximately the best 2% of the City's architecture.

HERITAGE SURVEY

More recently, the Foundation for San Francisco's Architectural Heritage, through its consultants, Charles Hall Page & Associates, Inc., conducted an architectural and historical survey of all downtown structures. In 1979, the inventory results were published in the book Splendid Survivors. Criteria considered in rating the buildings included Architectural Significance, Historical/Cultural Significance, Environmental Significance and Negative Alterations. Summary ratings from "A" to "D" were then assigned to each building on the basis of these scores. The summary ratings indicate the following:

A. Highest Importance. Individually the most important buildings in downtown San Francisco. All "A" group buildings are eligible for the National Register and have highest priority for City Landmark status.

B. Major Importance. Buildings which are of individual importance by virtue of architectural, historical, and environmental criteria. "B" group buildings are eligible for the National Register and are of secondary priority for City Landmark status.

Source: Environmental Science Associates, Inc., Final EIR, Five Fremont Center EE80.208, 12 March, 1981.

C. Contextual Importance. Buildings which are distinguished by their scale, materials, compositional treatment, cornice and other features. Many "C" group buildings may be eligible for the National Register as part of historic districts.

D. Minor or No Importance. Buildings which are insignificant examples of architecture. Most "D" group buildings are "sites of opportunity."

NOT RATED. Buildings which have been built or suffered insensitive exterior remodelings since 1945.

APPENDIX D

Transportation Data Analysis[1]

1. Trip Generation, Distribution and Mode Split of Proposed Project

The trip generation, distribution and modal split for office use was taken from Attachment I of San Francisco Department of City Planning, Guidelines for Environmental Evaluation: Transportation Impacts, June 1980, revised October 1980.

The daily and peak hour trip generation rates for the retail space were obtained from the One Sansome Building Final EIR EE78.334, certified 6 August 1981, pages 208-217. The geographic distribution and mode split for retail trips were assumed to be similar to that for office trips. Retail trips would represent less than 4% of the total project-generated trips, thus a more detailed distribution and mode split calculation was not deemed to be warranted.

The trip generation rates for the residential use were obtained from the Institute of Transportation Engineers, Trip Generation Manual, Second Edition 1976. The vehicle trip generation rates for apartments were converted to person trips assuming an occupancy rate of 1.3 persons per vehicle-trip. Again, since the residences would generate less than 6% of the total project trips, trip distribution and modal split of residential trips were assumed to be similar to that for office uses.

2. Cumulative Impact Analysis

The proposed project is scheduled to be completed sometime in 1985. Currently approved projects (see Tables A-1, A-2, A-3, A-5, and A-6, Figure A-2) are all scheduled to be completed by 1983. It was therefore necessary to project future downtown growth for the two years between 1983 and 1985.

Based upon past office construction[2] and currently proposed projects (Tables A-4, A-5, A-6, pages A-52 - A-54) it appears that for the next few years that San Francisco could expect 2 to 3 million gross square feet of new office construction each year. This represents roughly an annual 5% growth in office space. Thus, between 1983 and 1985, it was assumed that the downtown would continue to grow at about 5% per year.

All of the office space from 1981 to 1985, however, could not be directly translated into increased traffic on downtown streets. Since parking in the financial district is close to capacity, few additional cars can park in this area. It was assumed that 10% growth in traffic might still occur in the financial district primarily due to increased through traffic and carpool traffic. The remainder of the traffic growth would occur on the fringes of the downtown where more parking is available.

---

[1] Source: DKS Associates

[2] San Francisco Department of City Planning, Final EIR, 101 Montgomery Street, EE80.26, certified 7 May 1981.

TABLE A-1

MAJOR OFFICE BUILDING CONSTRUCTION IN SAN FRANCISCO
AS OF February 11, 1982 in gross square feet

Year	Ttl.Gross Sq. Ft. Cmpltd.	5-Year Total	5-Year Annual Average	Cumulative Total All Office Blds.	All Downtown Office Buildings
Pre-1960		(Net)(3)	(Net)(3)	28,145,000(1)	24,175,000(2)
1960	1,183,000				
1961	270,000				
1962	---				
1963	---				
1964	1,413,000				
		2,866,000	573,200		
1960-1964		(2,580,000)	(516,000)	30,725,000	26,754,000(3)
1965	1,463,000				
1966	973,000				
1967	1,453,000				
1968	1,234,000				
1969	3,256,000				
		8,379,000	1,675,800		
1965-1969		(7,541,000)	(1,508,000)	38,266,000	34,295,000
1970	1,853,000				
1971	---				
1972	1,961,000				
1973	2,736,000				
1974	2,065,000				
		8,615,000	1,723,000		
1970-1974		(7,753,000)	(1,550,000)	46,019,000	42,048,000
1975	536,000				
1976	2,429,000				
1977	2,660,000				
1978	---				
1979	2,532,000				
		8,157,000	1,631,400		
1975-1979		(7,341,000)	(1,468,000)	53,360,000	49,389,000
1980	1,284,000				
1981/82	3,138,000			57,340,000	53,369,000
Under Construction 82/84	6,830,000	11,252,000	2,250,000		
1980-1984		(10,127,000)	(2,025,000)	63,317,000	58,517,000
Approved Projects	2,445,000			65,518,000	59,198,000

Source: Department of City Planning records

(1) Source: S.F. Downtown Zoning Study - Working Paper No.1, January 1966, Appendix, Table 1, Part 1. For pre 1965, includes the area bounded by Vallejo, Franklin, Central Skyway, Bryant and Embarcadero. Also includes 1/3 of mixed use retail/office. For post 1964, includes the entire city.

(2) Gross Floor Space for downtown offices are included for the following functional areas: Financial, Retail, Hotel, Jackson Square, Golden Gateway, Civic Center, South of Market, and Outer Market Street as defined in the 1/66 report. For post 1964, the entire area east of Franklin is included.

(3) Net equals 90% of (gross). Net new space is added at an increase factor of 90%, since is assumed that space equal to 10% of a new building is demolished to make land available for the new replacement building.

TABLE A-2

MAJOR DEVELOPMENT PROPOSALS UNDER CONSTRUCTION
OR ACTIVE REVIEW WITHIN THE
DEPARTMENT OF CITY PLANNING FEBRUARY 1982

	Number Projects	Office Gr. Square Feet	Number Housing Units
Proposed:	54	9,156,242	2,754
Approved:	15	2,455,000	559
Under Construction:	17	6,830,000	1,023
Totals:	86	18,431,242	4,336

Source: Environmental Impact Planning Corporation
San Francisco Department of City Planning
San Francisco Department of Public Works
Bureau of Building Inspection

TABLE A-3

MAJOR DEVELOPMENT PROPOSALS UNDER CONSTRUCTION
OR ACTIVE REVIEW WITHIN THE
DEPARTMENT OF CITY PLANNING FEBRUARY 1982
C-3-0 DISTRICT SUMMARY

	Number Projects	Office Gr. Square Feet	Number Housing Units
Proposed:	21	5,725,000	446
Approved:	6	757,000	0
Under Construction:	11	5,720,000	0
Totals:	38	12,202,000	446

Source: Environmental Impact Planning Corporation
San Francisco Department of City Planning
San Francisco Department of Public Works
Bureau of Building Inspection

TABLE A-4

PROJECTS UNDER FORMAL REVIEW WITHIN C-3-0 DISTRICT

Name	Block Number	Lot Number	Office Sq. Ft.	Height		On-Site Parking	E.E. Number
				Stories	Feet		
135 Main	3717 C-3-0	12,13	248,000	22	340	22	81.61
Bank of Canton	227 C-3-0	1-4,29,46,47	230,000	20	N/A	40	80.296
S.F. Federal Savings	311 C-3-0	7,8,9.10.11	183,000	16	230	23	80.339
Spear Main	3717 C-3-0	5,10,11	337,000	19	240	N/A	80.349
562 Mission	3708 C-3-0	15-18	580,000	34	494	74	81.297
109-199 Main Mission	3717 C-3-0	14-18	352,000	27	394	46	81.183
1st & Market	3709 C-3-0	12	368,000	20	340	66	81.113
Sloane Conversion	287 C-3-0	9	155,000	9	N/A	0	80.362
Hunt/Knight Building (M)	3707 C-3-0	1-3,54-56,59	340,000	40	N/A	100	80.355
300 Market	265 C-3-0	1,2	224,000	29	400	80	81.195
466 Bush	270 C-3-0	33	94,000	13	160	0	81.175
333 Bush	288 C-3-0	20-23,26,28	585,000	37	500	N/A	81.461
90-93 New Montgomery	3707 C-3-0	14	137,000	15	N/A	N/A	81.492
71 Stevenson	3708 C-3-0	28,29	346,000	22	N/A	N/A	81.493
New Montgomery at Howard	3722 C-3-0	21	111,000	N/A	N/A	N/A	81.280
144 2nd at Minna	3722 C-3-0	4	30,000	N/A	N/A	N/A	81.417
33 California	261 C-3-0	2,6,13	606,000	47	600	150	81.249
250 Montgomery at Pine	268 C-3-0	17-19	113,000	15	N/A	15	81.422
121 Steuart/Mission	3715 C-3-0	3	49,000	7	N/A	N/A	82.16
580 California/ Kearny	240 C-3-0	7	350,000	7	N/A	N/A	81.705
154 Sutter/Kearney	288 C-3-0	10,11,29	287,600	N/A	N/A	N/A	81.687

(C) Conversion (generally industrial and/or warehouse to office).
(M) Mixed use - office/residential.

TABLE A-5

PROJECTS UNDER CONSTRUCTION WITHIN C-3-0 DISTRICT

Name	Block Number	Lot Number	Office Sq. Ft.	Height Stories	Height Feet	On-Site Parking	E.E. Number
101 Montgomery	288 C-3-0	2,3,4,5,6, 26	277,000	28	405	0	80.26
DAON - Sacramento	237 C-3-0	14,15,16	289,000	25	351	0	79.57
at Battery/Crocker	292 C-3-0	1-8,11,12	770,000	38	500	60 - 100	78.298
Federal Reserve	3712 C-3-0	1-4,16-20 7,13-15	653,000	12	195	0	78.207
101 California	263 C-3-0	1-10	1,300,000	48	600	260	78.27
50 Grant	312 C-3-0	8	90,000	8	N/A	N/A	79.370
Pacific Gateway	3718 C-3-0	N/A	548,000	N/A	N/A	N/A	N/A
150 Spear	3717 C-3-0	3,4	330,000	N/A	N/A	N/A	78.413
25 Jessie at Ecker	3708 C-3-0	N/A	111,000	N/A	N/A	N/A	N/A
5 Fremont Center	3709 C-3-0	4-7,10	742,000	43	600	160	
One Sansome	289 C-3-0	3, 4	610,000	40	560	0	78.334

(C) Conversion (generally industrial and/or warehouse to office).
(M) Mixed use - office/residential.

Source: Environmental Impact Planning Corporation
San Francisco Department of City Planning
San Francisco Department of Public Works
Bureau of Building Inspection

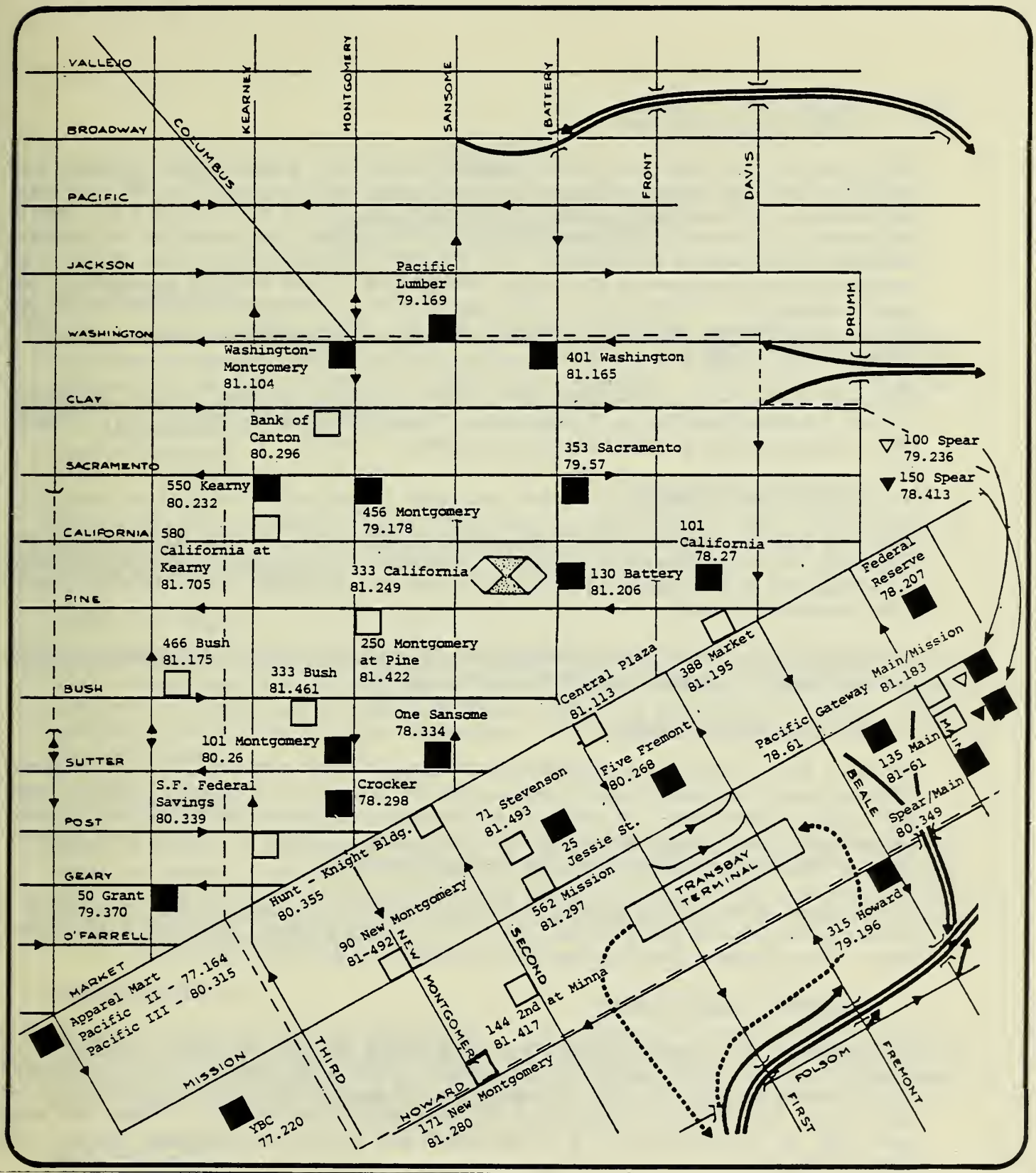
TABLE A-6

PROJECTS APPROVED WITHIN C-3-0 DISTRICT

Name	Block Number	Lot Number	Office Sq. Ft.	Height Stories	Height Feet	On-Site Parking	E.E. Number
130 Battery	262 C-3-0	8	30,000	4	54	0	81.206
101 Mission (100 Spear Bldg.)	3717 C-3-0	1	181,000	20	273	0	79.236
456 Montgomery	239 C-3-0	12,13,14	223,000	24	378	0	79.178
550 Kearny	240 C-3-0	16	71,000	5		N/A	80.232
655 Washington/ Montgomery	208 C-3-0	2-4,25	236,000	24	300	62	81.104
401 Washington	206 C-3-0	16	16,000	7	95	0	81.165

(C) Conversion (generally industrial and/or warehouse to office).
(M) Mixed use - office/residential.

Source: Environmental Impact Planning Corporation
San Francisco Department of City Planning



■ Under Construction, or Approved Projects

□ Projects in Permit Process

- - - C-3-O District Boundaries

North

NO SCALE

Projects in The Vicinity of 333 California

Figure No. A-2

3. Traffic Impact Analysis

The projected peak hour traffic was assigned to the local street system assuming that one-half of the cars parked on-site would exit or enter the site during the PM peak hour. The remaining 410 cars were assumed to park off-site (1/4 of them within 1,000 feet of the project, 1/2 between 1,000 and 2,000 feet of the project, the remainder at distances exceeding 2,000 feet of the project.) An additional 10% of the peak hour vehicle trips were assumed to be made to the project site to pick up and drop off employees. The assumed geographical distribution of trips was as given in Attachment 1 on the City of San Francisco, Guidelines for Environmental Evaluation: Transportation Impacts, June 1980, revised October 1980.

The level of service calculations were made according to the "Critical Movement Analysis" method described in Transportation Research Board Circular No. 212, January 1980. The definitions of level of service are given in Table A-7.

4. Transit Impact Analysis

The 1983 transit ridership projections given in Attachment 3, City of San Francisco, Guidelines for Environmental Evaluation: Transportation Impacts, revised October 1980 were projected to 1985 assuming a 5% growth per year in parallel to the projected growth in downtown office space.

The PM peak hour transit trips generated by the proposed project were assigned to each Muni Transit line in proportion to their current ridership.

5. Parking Impact Analysis

The total daily vehicle trips generated by the project were split into 55% work trips and 45% non-work trips (since there is some retail use on-site, the 57% work, 43% non-work split given in Attachment 1 of the City's environmental Guidelines for office buildings only was revised slightly downward.) The work trips were assumed to be long-term parkers. The non-work trips were assumed to be short-term parkers.

The turnover rates were estimated to be one vehicle per space per day for long-term parkers and 4 vehicles per space per day for short-term parkers. These rates were taken from the One Sansome Building Final EIR, certified 6 August 1981, EE78.334.

6. Pedestrian Impact Analysis

The pedestrian trips generated by the project during the noon hour were assumed to be roughly equal to the population of the project. Noon hour pedestrian trips were split evenly among the directions of the compass. PM peak hour trips were estimated to be equal to the total PM peak hour person trip generation of the project. These trips were split 70% to the south and 30% to the north and equally split between Battery and Sansome Streets.

TABLE A-7

LEVELS OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS*

Level of Service A

Level of Service A describes a condition where the approach in an intersection appears quite open and turning movements are made easily. Little or no delay is experienced. No vehicles wait longer than one red traffic signal indication. The traffic operation can generally be described as excellent.

Level of Service B

Level of Service B describes a condition where the approach to an intersection is occasionally fully utilized and some delays may be encountered. Many drivers begin to feel somewhat restricted within groups of vehicles. The traffic operation can generally be described as very good.

Level of Service C

Level of Service C describes a condition where the approach to an intersection is often fully utilized and back-ups may occur behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so. The driver occasionally may have to wait more than one red traffic signal indication. The traffic operation can generally be described as good.

Level of Service D

Level of Service D describes a condition of increasing restriction causing substantial delays and queues of vehicles on approaches to the intersection during short times within the peak period. However, there are enough signal cycles with lower demand such that queues are periodically cleared, thus preventing excessive back-ups. The traffic operation can generally be described as fair.

Level of Service E

Capacity occurs at Level of Service E. It respresents the most vehicles that any particular intersection can accommodate. At capacity there may be long queues of vehicles waiting upstream of the intersection and vehicles may be delayed up to several signal cycles. The traffic operation can generally be described as poor.

Level of Service F

Level of Service F represents a jammed condition. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration. Hence, volumes of vehicles passing through the intersection vary from signal cycle to signal cycle. Because of the jammed condition, this volume would be less than capacity.

*City and County of San Francisco, Department of Public Works, Traffic Engineering Division

7. Service Vehicle Impact Analysis

The truck trip generation data contained in the Wilbur Smith Assoc., Central City Circulation Program, Goods Movement Study, Working Paper #2, December 1979 was used to generally estimate the service/delivery vehicle trips generated by the project. Supplemental information on truck size, type, and peak arrival rates were obtained from a survey made of the State Compensation Insurance Building at 1275 Market Street (corner of Market and Ninth). The survey was conducted specially for the EIR. The results of the State Compensation Building study are on file with the Office of Environmental Review, 45 Hyde Street.

The proposed 333 California project is just under twice the size of the State Compensation Building. The proposed project has 102,000 feet^2 (GFA) of residential use which the State Compensation Building does not have, however the propsed project has almost exactly twice as muchoffice space.

Thus, to roughly estimate the likely peak arrival rates of larger trucks (vans over 8 feet tall, small single units up to semis) and small vans (vans under 8 feet tall and pickups), the observed rates at the State Compensation Building were factored up by two.

A similar survey of truck types was conducted at the Embarcadero #1, #2, and #3 centers. All service and delivery vehicle parking on or off-street were counted once every half hour (at the State Compensation building the vehicles were observed continuously.) This survey of Embarcadero Center showed a high proportion of small vans and pickup trucks (see Table A-8). This is thought to be due to the heavy retail activity in the area as well as the use of commercial plate vehicles for personal errands.

TABLE A-8

SURVEY OF TRUCK TYPES PARKING ON AND OFF STREET AT EMBARCADERO CENTERS ONE, TWO AND THREE IN SAN FRANCISCO (BETWEEN SACRAMENTO, CLAY, BATTERY AND DAVIS STREETS)

(STUDY MADE WEDNESDAY AFTERNOON, 6/3/81)

	Number of Parked Trucks Observed at Each Half-Hour						
				Small Vans*			
Time	Semi Trucks	Single Units	Walk-In Vans	Under 8'	Over 8'	Pickups	Total
Noon	0	2	2	10	0	6	20
12:30 PM	1	2	3	16	1	11	34
1:00 PM	0	4	2	17	0	15	38
1:30 PM	0	7	0	21	0	13	41
2:00 PM	0	4	3	15	0	19	41
2:30 PM	2	6	3	21	1	16	49
3:00 PM	1	7	2	12	1	19	41
Average	0.6	4.6	2.1	16.0	0.4	14.1	37.9
	(1.6%)	(12.2%)	(5.6%)	(42.3%)	(1.0%)	(37.3%)	(100%)

*Classified by the height, including any equipment or materials tied on roof racks

APPENDIX E

MICROCLIMATE IMPACT STUDY FOR THE PROPOSED 333 CALIFORNIA BUILDING

SEPTEMBER 1981

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MICROCLIMATE IMPACT STUDY

I. INTRODUCTION

Architects, engineers, and city planners designing urban structures are limited by the lack of information on wind effects due to structures, such as pedestrian discomfort and wind-caused mechanical problems with doors, windows, and ventilating systems. Once a structure is built, remedial measures (if they exist at all) usually are expensive.

It is virtually impossible to anticipate, by analysis or intuition, the winds that will be caused by a structure, as they are determined by complex interactions of forces. Fortunately it is possible to predict the wind patterns and pressures around structures by testing scale models in a wind tunnel which can simulate natural winds near the ground. This allows the designer to foresee possible environmental and mechanical problems and alleviate them before the building is erected.

Data from wind tunnel tests can be combined with climatological data in analysis of the effect of a proposed structure on pedestrians in terms of human comfort. The frequency distribution of wind strengths at pedestrian level, combined with temperature data and shadow patterns of the proposed structure and its surroundings, can be used to forecast comfort at pedestrian levels.

II. SUMMARY

Wind tunnel tests of scale models were conducted for the existing site, the proposed project, and an alternative project for the two most frequent wind directions in San Francisco. The existing site was found to have low to moderate windspeed ratios for northwesterly wind direction. For a westerly wind direction speed ratios ranged from moderately low to high.

The project would result in a mixed pattern of windspeed ratio increases and decreases. For northwest winds, decreases would occur along California Street and at the California/Sansome intersection. Increases would occur along Sansome, Pine and Battery Streets.

For westerly winds, a mixture of wind decreases and increases would occur, with the largest decreases occurring along Pine Street, and Battery and Sansome Streets adjacent the site, and the largest increases occurring along Sansome across from the site and along Sansome south of Pine.

III. BUILDING AND SITE DESCRIPTION

The project site is the block bounded by California, Battery, Pine and Sansome Streets in the San Francisco's Financial District. The project would occupy the center of the block, and would require the removal of 3 existing structures.

The project would be an office, retail and residential structure 47 stories high. The ground floor would have retail uses off an interior arcade with connections to Sansome, California and Battery Streets. The first 8 stories would be rectangular, with triangular cut-outs on the Sansome and Battery Streets facades. From the 8th to the 35th floor the building would have a hexagonal cross-section. Above the 35th floor, a succession of triangular setbacks would result in twin rectangular towers separated by a narrow gap.

The project site is surrounded by mostly older (pre-1970) highrise structures of 4-15 stories, with a few newer (post-1970) highrises of 30 to 40 stories. The site is partially sheltered by existing structures although there are gaps between buildings to the northwest of the site.

IV. MODEL AND WIND TUNNEL FACILITIES

Model

Scale models of the proposed buildings and the structures surrounding the area for a distance of several blocks were constructed of polystyrene and urethane foams at a scale of 1 inch equals 30 feet. Building configurations and heights were obtained from the Sanborn maps at the San Francisco Department of City Planning and from site visits.

Wind Tunnel Facilities

The Environmental Impact Planning Corporation boundary layer wind tunnel was designed specifically for testing architectural models. The working section is 7 feet wide, 43 feet long, and 5 feet high. Wind velocities in the tunnel can be varied from 3.5 mph to 13 mph. The flow characteristics around sharp-edged objects, such as architectural models, are constant over the entire speed range. Low speeds are used for tracer smoke, high speeds for windspeed measurements.

Simulation of the characteristics of the natural wind is facilitated by an arrangement of turbulence generators and roughness upwind of the test section. These allow adjustments in wind characteristics to provide for different scale models and varying terrain upwind of the project site.

Measurements of windspeed around the model are made with a hotwire anemometer, a device that relates the cooling effect of the wind on a heated wire to the actual windspeed. The flow above the city is measured by a Pitot tube connected to a micromanometer. The Pitot tube and micromanometer measure directly the pressure difference between moving and still air. This pressure difference is then related to the actual windspeed. Flow visualization is achieved by use of floodlit smoke.

V. TESTING METHODOLOGY

Simulation of Flow

The most important factors in ensuring similarity between flow around a model in a wind tunnel and flow around the actual building are the structure of the approach flow and the geometric similarity between the model and the prototype. A theoretical discussion of the exact criteria for similarity is not included in this paper, but may be found elsewhere (Cermak, 1966, or Cermak and Arya, 1970).

The variation of windspeed with height (wind profile) was adjusted for the scale of the model and the type of terrain upwind of the site. The profiles used were those generally accepted as adequately describing the flow over that type of terrain (Lloyd, 1967).

Testing Procedure

The windflow characteristics of the site in its current state were investigated to ascertain the present wind environment. Windspeeds and wind directions at specified points throughout the site were measured and recorded. Wind direction was

measured by releasing smoke at each point and recording the direction in which the smoke traveled. Windspeed measurements were made at the same points, at a scale height of 5 feet above the ground. A hotwire anemometer probe is required to make these measurements within a fraction of an inch of the model surfaces. The probe is repeatedly calibrated against the absolute reading of a Pitot tube and micromanometer. Velocity readings close to the model are generally accurate to within 10% of the true velocity.

Measurements for the building are made by keeping the probe in place while replacing the existing buildings with each proposal under consideration.

Before and after each test run, a calibration measurement was made above the model. The purpose of these measurements was to relate the wind tunnel measurements to actual wind records from U.S. Weather Service wind instrumentation located on the Federal Building at 50 Fulton Street.

VI. TEST RESULTS AND DISCUSSION

Tests were conducted for northwest and west winds, the 2 most frequent wind directions in San Francisco.

Measured windspeeds are expressed as percentages of the calibration windspeed, which corresponds to the actual windspeed at the San Francisco Weather Station. Thus, a plotted value of 52 means that the measured windspeed is expected to be 52% of the windspeed recorded by the Weather Service when winds are from that particular direction.

The plotted values can be interpreted in terms of general "windiness" using the scale below. This scale is subjective and is based on information gathered from similar studies in San Francisco.

Velocity	Percentage of Calibration Windspeed
Low	0-0.19
Moderately low	0.20-0.29
Moderate	0.30-0.49
Moderately high	0.50-0.69
High	0.70-1.00
Very high	greater than 1.00

The plotted values are not actual windspeeds, but ratios. Thus, a point having a "very high" windspeed ratio would still experience light winds on a near-calm day. Likewise,

a point found to have "low" winds could experience significant winds on a windy day.

Wind direction is indicated by an arrow pointing in the direction of flow. Where wind direction fluctuated, two arrows representing the principal flow directions were plotted. Areas of fluctuating winds normally are turbulent, as are areas of spiraling motion; the latter are denoted by curved arrows.

Northwest Wind

Northwest winds occur 12 to 39% of the time in San Francisco, depending on the season. (In meteorology, a northwest wind blows from the northwest). Northwesterly and westerly winds are the most frequent and the strongest winds at all seasons in San Francisco. Northwest winds exceed 13 miles per hour 35% of the time and 25 miles per hour 3% of the time in summer. (These windspeed categories are used because wind frequency data are broken down into categories of 4-13 mph, etc.) Wind frequencies and speeds are lower in spring, fall, and winter.

Existing windspeed ratios for northwest winds are shown in Figure A-3 A. Windspeed ratios in the project vicinity range from low to moderately high. The highest windspeed ratios were found east of the site along California Street, Battery Street and Pine Street. Windspeed ratios along the sidewalks of the project block generally were moderately low to moderate.

Windspeed ratios with the proposed project are shown in Figure A-3C. The project would result in decreases in the windspeed ratio of from 1 to 8% along California Street and at the California/Sansome intersection. Windspeed ratios would increase along Sansome Street across from the site by .1 to 5%. Pine Street generally would experience higher windspeed ratios, with increases ranging from 2 to 11%. Windspeed ratios along Battery Street adjacent the site would increase by 1 to 10%.

West Wind

West winds occur between 15 and 40% of the time, depending on the season. They exceed 13 miles per hour 20% of the time and 25 miles per hour 7% of the time in summer. Wind strengths and frequencies are somewhat lower in spring, fall and winter.

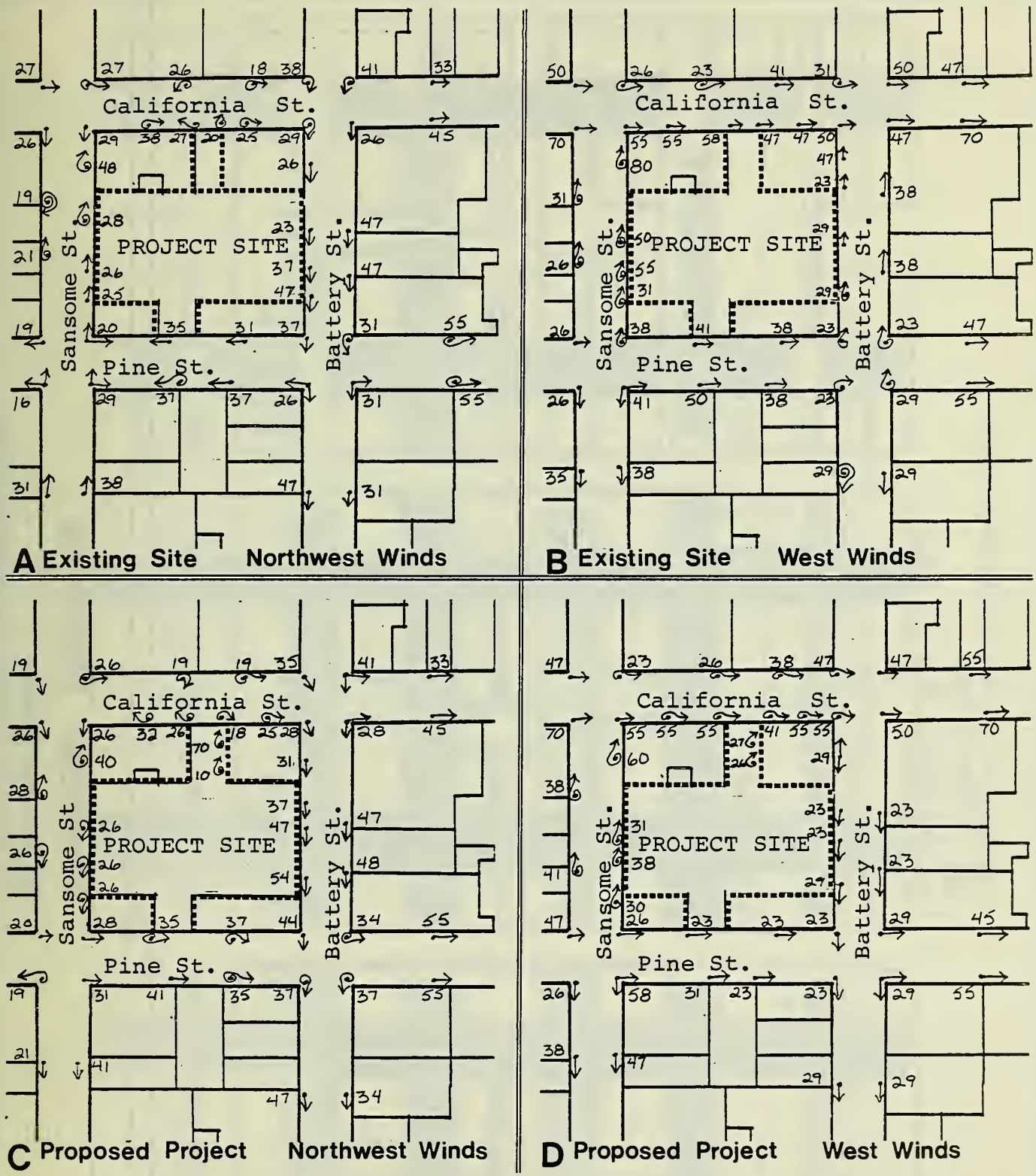
Measured data for the existing site under west wind conditions are shown in Figure A-3 B. Windspeed ratios range from moderately low to high. The highest windspeed ratios were found along California Street, Sansome Street adjacent the project site, and Pine Street east of Battery Street. Windspeed ratios elsewhere are moderately low to moderate.

The project would result in a complicated pattern of windspeed ratio decreases. Along California Street, a mixture of decreases and increases would occur, with decreases occurring near the California/Sansome intersection and increases occurring near the California/Battery intersection. The west side of Sansome Street across from the site would experience increases of from 7 to 11%, while the east side of Sansome adjacent the site would experience decreases ranging from 1 to 20%. Winds would be increased along Sansome Street south of Pine Street by from 3 to 17%. Along Pine Street, windspeed ratios would be decreased by from 15 to 19% between Sansome and Battery Streets, and would be increased by from 0 to 6% east of Battery Street. Windspeed ratios would be lowered along Battery Street adjacent the site, with decreases ranging up to 18%.

VII. MITIGATION MEASURES

The use of a hexagonal tower shape, multiple setbacks at the upper levels and twin residential towers are all design features that would reduce the impact of the structure on ground level winds, compared to a conventional design using a continuous facade. The project's location in the middle of the block has the advantage of using the lower existing structures to reduce or divert windflows down building faces and reducing wind effects at ground level pedestrian areas.

Mitigation measures to provide local areas of shelter for pedestrians would be appropriate along the sidewalks adjacent the site. Small structures such as kiosks for newspaper or flower vendors, telephone booths and bus shelters can serve in this way. Similarly, street trees and statuary can be used to provide shelter.

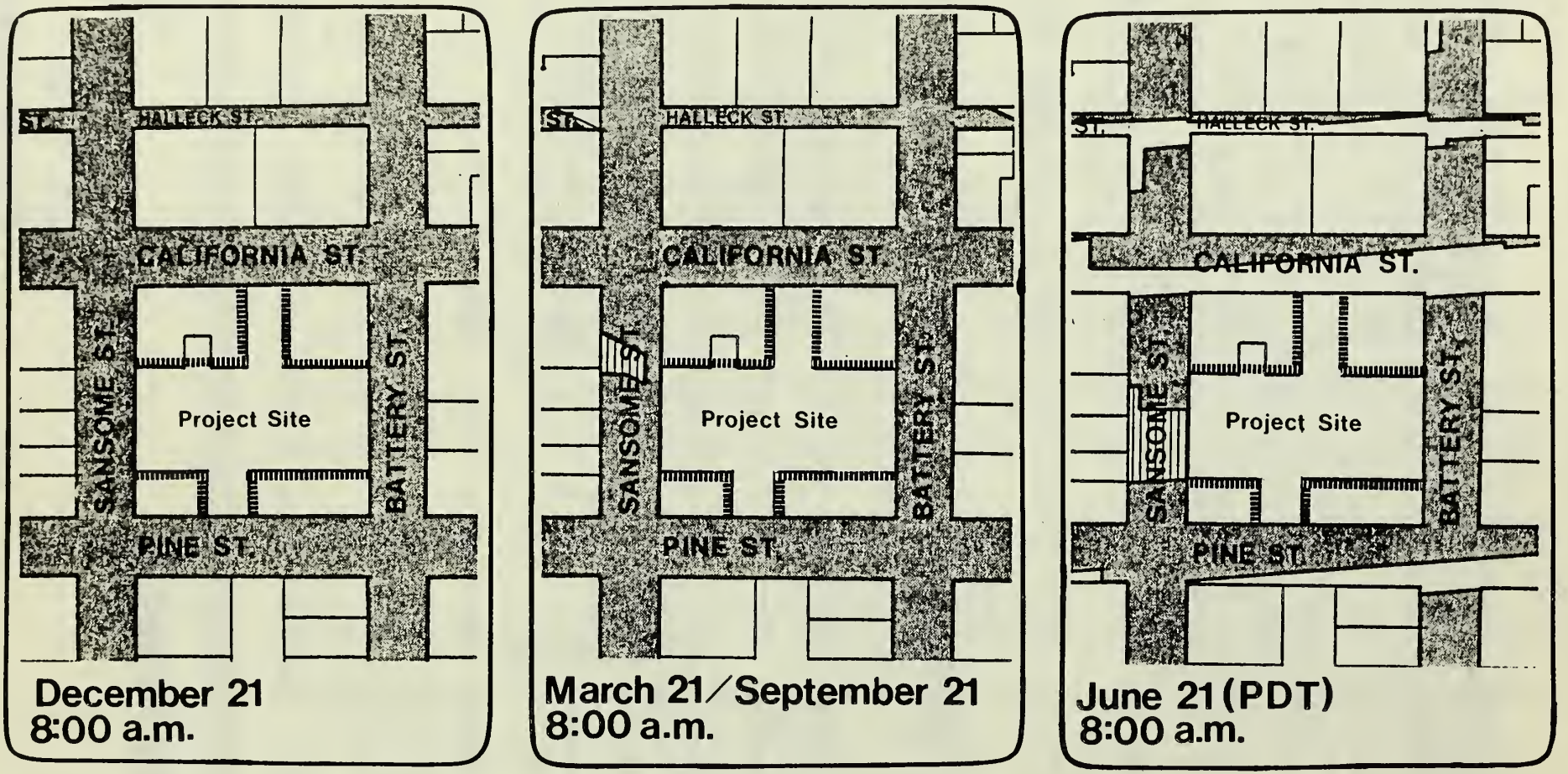


Wind Study Results

North

0 50 100 200
Scale Feet

Figure No. A-3



North

0 50 100 200

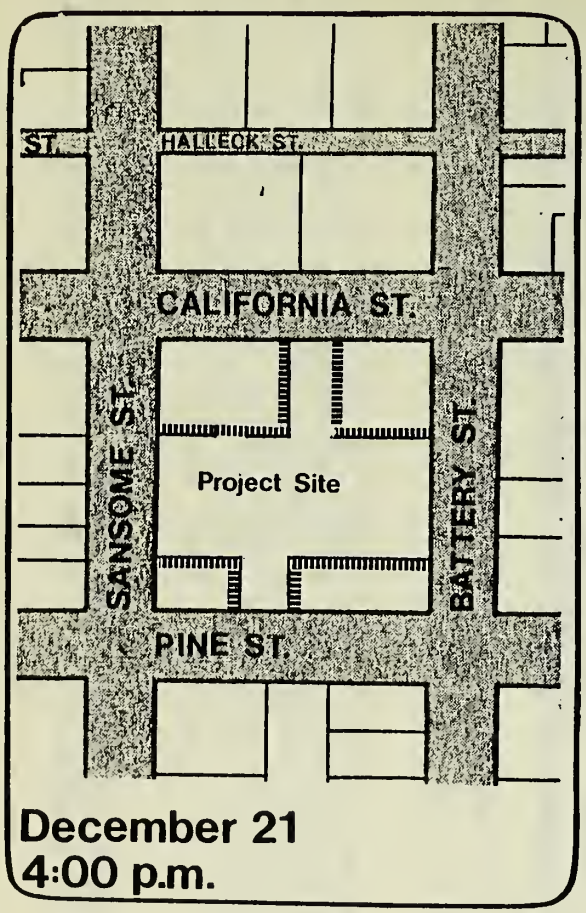
Scale Feet

Shadow Patterns

Existing Shadow

Shadows caused by Proposed Project

Figure No. A-4



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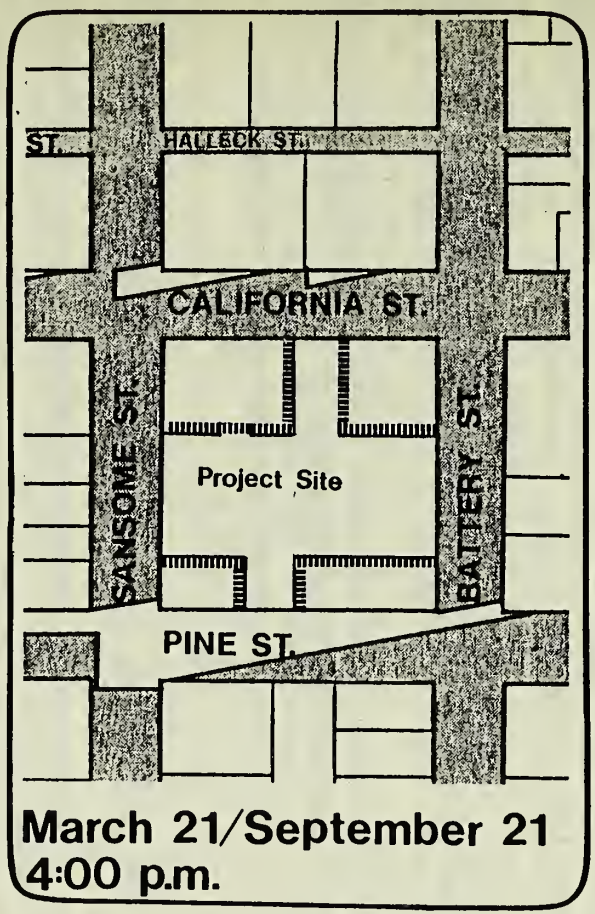
4:00 p.m.



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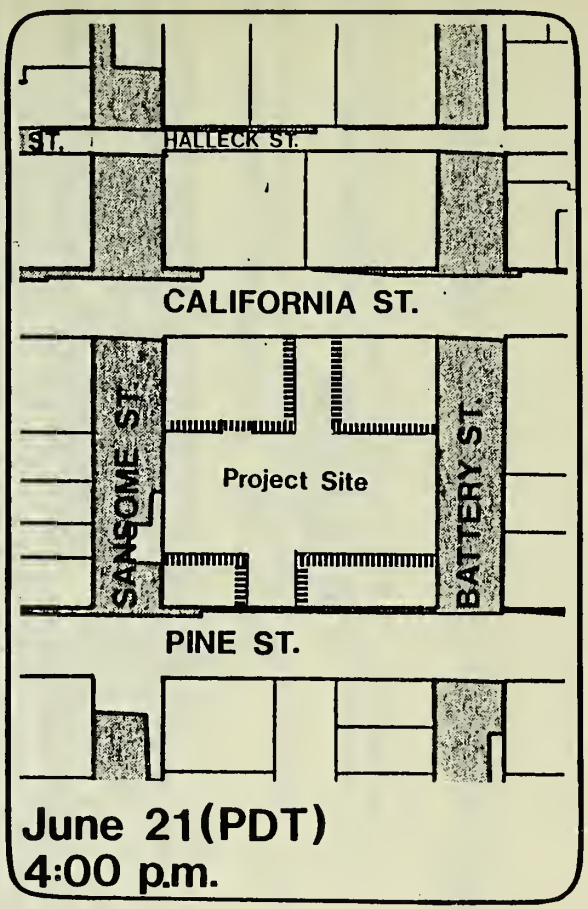
4:00 p.m.



June 21(PDT)
4:00 p.m.

North

0 50 100 200
Scale Feet

Shadow Patterns

Existing Shadow
Shadows caused by Proposed Project

Figure No. A-5

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APPENDIX F: FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL NOISE

This section provides background information to aid in understanding the technical aspects of this report.

Three dimensions of environmental noise are important in determining subjective response. These are:

a. the intensity or level of the sound;
b. the frequency spectrum of the sound;
c. the time-varying character of the sound.

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing.

The "frequency" of a sound refers to the number of complete pressure fluctuations per second in the sound. The unit of measurement is the cycle per second (cps) or Hertz (Hz). Most of the sounds which we hear in the environment do not consist of a single frequency, but of a broad band of frequencies, differing in level. The quantitative expression of the frequency and level content of a sound is its sound spectrum. A sound spectrum for engineering purposes is typically described in terms of octave bands which separate the audible frequency range (for human beings, from about 20 to 20,000 Hz) into ten segments.

Many rating methods have been devised to permit comparisons of sounds having quite different spectra. Fortunately, the simplest method correlates with human response practically as well as the more complex methods. This method consists of evaluating all of the frequencies of a sound in accordance with a weighting that progressively and severely deemphasizes the importance of frequncy components below 1000 Hz, with mild deemphasis above 5000 Hz. This type of frequency weighting reflects the fact that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency midrange.

The weighting curve described above is called "A" weighting, and the level so measured is called the "A-weighted sound level", or simply "A-level".

The A-level in decibels is expressed "dBA"; the appended letter "A" is a reminder of the particular kind of weighting used for the measurement. In practice, the A-level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. All U.S. and international standard sound level meters include such a filter.

Although the A-level may adequately describe environmental noise at any instant in time, the fact is that the community noise level varies

Source: Charles M. Salter Associates, report for EIP Corporation, 1981.

continuously. Most environmental noise includes a conglomeration of distant noise sources which creates a relatively steady background noise in which no particular source is identifiable. These distant sources may include traffic, wind in trees, industrial activities, etc. These noise sources are relatively constant from moment to moment, but vary slowly from hour to hour as natural forces change or as human activity follows its daily cycle. Superimposed on this slowly varying background is a succession of identifiable noisy events of brief duration. These may include nearby activities or single vehicle passages, aircraft flyovers, etc., which cause the environmental noise level to vary from instant to instant.

To describe the time-varying character of environmental noise, the statistical noise descriptors L10, L50, and L90 are commonly used. The L10 is the A-weighted sound level equaled or exceeded during 10 percent of a stated time period. The L10 is considered a good measure of the "average peak" noise. The L50 is the A-weighted sound level that is equaled or exceeded 50 percent of a stated time period. The L50 represents the median sound level. The L90 is the A-weighted sound level equaled or exceeded during 90 percent of a stated time period. The L90 is used to describe the background noise.

As it is often cumbersome to describe the noise environment with these statistical descriptors, a single number descriptor called the Leq is also widely used. The Leq is defined as the equivalent steady-state sound level which in a stated period of time would contain the same acoustic energy as the time-varying sound level during the same time period. The Leq is particularly useful in describing the subjective change in an environment where the source of noise remains the same but there is change in the level of activity. Widening roads and/or increasing traffic are examples of this kind of situation.

In determining the daily measure of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises.

During the nighttime, exterior background noises are generally lower than the daytime levels. However most household noise also decreases at night and exterior noises become very noticeable. Further most people are sleeping at night and are very sensitive to noise intrusion.

To account for human sensitivity to nighttime noise levels a descriptor, CNEL, (Community Noise Equivalent Level) was developed. The CNEL divides the 24-hour day into the daytime of 7 am to 7 pm, the evening of 7 pm to 10 pm, and the nighttime of 10 pm to 7 am. The evening noise level is weighted 5 dB higher than the daytime noise level and the nighttime noise level is weighted 10 dB higher than the daytime noise level. The CNEL, then, is the A-weighted average sound level in decibels during a 24-hour period with 5 dBA added to the hourly Leqs during the evening and 10 dBA added to the hourly Leqs during the nighttime. For highway noise environments the Leq during the peak traffic hour is approximately equal to the CNEL.

The effects of noise on people can be listed in three general categories:

1) subjective effects of annoyance, nuisance, dissatisfaction;
2) interference with activities such as speech, sleep, learning;
3) physiological effects such as startle, hearing loss.

The sound levels associated with environmental noise, in almost every case, produce effects only in the first two categories. Unfortunately, there is as yet no completely satisfactory measure of the subjective effects of noise, or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance, and habituation to noise over differing individual past experiences with noise.

Thus, an important parameter in determining a person's subjective reaction to a new noise is the existing noise environment to which one has adapted: the so-called "ambient" noise. "Ambient" is defined as "the all-encompassing noise associated with a given environment, being a composite of sounds from many sources, near and far". In general, the more a new noise exceeds the previously existing ambient, the less acceptable the new noise will be judged by the hearers.

With regard to increases in noise level, knowledge of the following relationships will be helpful in understanding the quantitative sections of this report:

a) Except in carefully controlled laboratory experiments, a change of only 1 dBA cannot be perceived.
b) Outside of the laboratory, a 3-dBA change is considered a just-noticeable difference.
c) A change in level of at least 5 dBA is required before any noticeable change in community response would be expected.
d) A 10-dBA change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse change in community response.

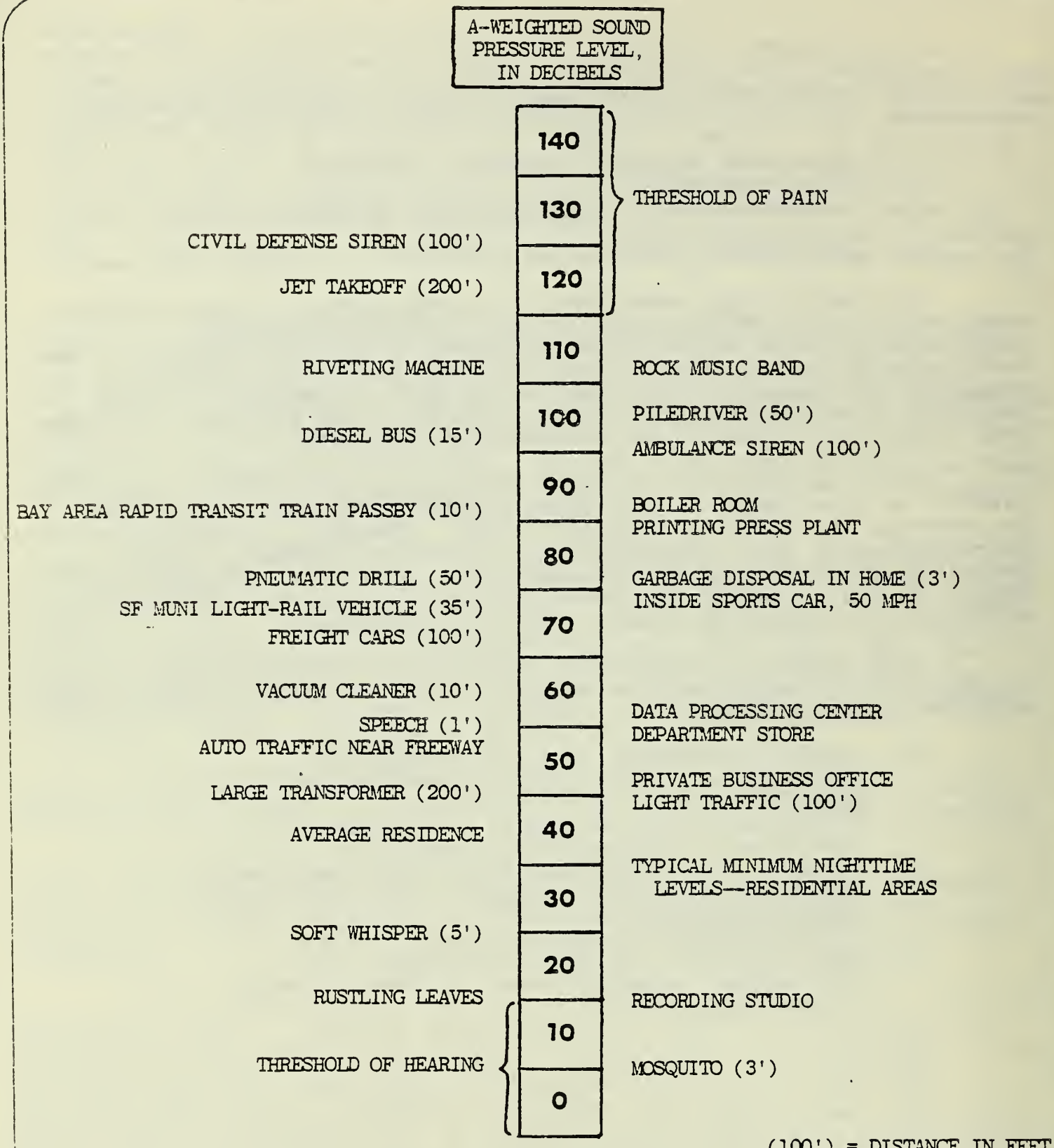

FIGURE A-1: TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

12/81

APPENDIX G AIR QUALITY IN SAN FRANCISCO[1]

Meteorological characteristics such as wind patterns and thermal inversions determine the movement and dispersion of air pollutants. The prevailing wind directions in San Francisco are from the west and northwest. Wind frequencies and speeds are generally highest in the summer. Light-variable (calm) wind conditions occur approximately 25% of the time on an annual basis. A thermal inversion (an inverted vertical temperature structure of the atmosphere consisting of warm air above cool air) is a stable atmospheric condition that inhibits the upward dispersion of air pollutants and traps them in a layer near the ground. High-altitude subsidence inversions, associated with warm descending air in a high-pressure cell which may last for several days, occur most of the time in summer and fall. Low-altitude radiation inversions, caused by radiation of heat from the earth's surface into cold nighttime air and usually dissipating by noon, occur most of the time in winter.

Much of San Francisco is generally upwind of major pollutant sources such as industrial areas, airports, freeways and other urban activities. San Francisco is more a contributor to its own air quality problems (especially local pollutants such as carbon monoxide and particulate) and to those in other parts of the Bay Area (especially ozone, or oxidant, which is a regional pollutant formed by a series of photochemical reactions involving hydrocarbons and nitrogen oxides over a period of several hours), than a recipient of pollutants from other areas. When atmospheric stagnation occurs (as the result of light-variable wind conditions coupled with thermal inversions, most commonly in the fall and winter), the potential exists for the entire Bay Area Air Basin to experience high concentrations of pollutants. Thus, air quality is both a local and regional problem. Table A-9 shows the number of days selected pollutants exceeded state or federal standards in 1980.

The BAAQMD monitoring station is located at 900 Twenty-third Street. The air intake monitor is on street level. While measurements there, shown in Table A-10indicate daily, seasonal, and annual meteorological and air quality trends, it is not clear how well the measurements represent conditions at street level near the station or elsewhere in the City.

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[1]From Final EIR, 101 Montgomery Street, EE80.26, certified 7 May 1981.

TABLE A-9

Number of Days Selected Pollutants Exceeded State or Federal Standards, 1980[1]

Monitoring Site	Ozone[2]	Nitrogen Dioxide	Carbon Monoxide	Suspended Particulates	Sulfur Dioxide
San Francisco (Ellis Street)	0.0	0	0	6	0
Redwood City	0.8	0	0	1	0
San Jose	6.2	1	15	15	0
San Rafael	0.7	0	0	1	0
Fremont	5.6	0	0	8	0
Livermore	2.2	0	-	9	0

[1]The state standards are specific concentrations and durations of air pollutants that reflect the relationship between concentration and undesirable effects. They are target values, and no timetable exists for their attainment. The federal primary standards represent levels of air quality necessary for protection of public health, with an adequate margin of safety. The provisions of the Clean Air Act as amended require that by a specified date the federal standards should not be exceeded more than once per year.

[2]Ozone exceedances are averaged over a 3-year period. A 3-year average of 1.0 or less is considered to comply with the federal standard.

Source: Bay Area Air Quality Management District, Air Currents, Vol. 24, No. 3, March 1981.

TABLE A-10

SAN FRANCISCO AIR POLLUTANT SUMMARY 1978-1980

STATIONS: 939 Ellis Street and 900 23rd Street, San Francisco*

POLLUTANTS:	STANDARD	1978	1979	1980*
OZONE (O_3) (Oxidant)				
1-hour concentration (ppm)[1]				
Highest hourly average	(0.08) 0.12[2,3]	0.11	0.08	0.09
Number of standard excesses		(4) 0	0	0
Expected Annual Excess[3]		0.3	0.0	0.0
CARBON MONOXIDE (CO)				
1-hour concentration (ppm)				
Highest hour average	35[2]	17	20	10
Number of standard excess		0	0	0
8-hour concentration (ppm)				
Highest 8-hour average	9[2]	9.4	13.8	7.5
Number of standard excesses		1	2	0
NITROGEN DIOXIDE (NO_2)				
1-hour concentration (ppm)				
Highest 24-hour average	0.25[4]	0.30	0.16	0.17
Number of standard excesses		4	0	0
SULFUR DIOXIDE (SO_2)				
24-hour concentration (ppm)				
Highest 24-hour average	0.05[4]	0.024	0.034	0.018
Number of standard excesses[5,6]		0	0	0
TOTAL SUSPENDED PARTICULATE (TSP)				
24-hour concentration (ug/m^3)[7]				
Highest 24-hour average	100[4]	128	117	173
Number of standard excesses[6]		1	1	6
Annual concentration (ug/m^3)				
Annual Geometric Mean	60[4]	42	42	52
Annual standard excess		NO	NO	NO

*In January 1980 all of the pollutant-monitoring functions of the 939 Ellis Street Station were transferred to the 900 23rd Street Station.

[1]PPM: Parts per million.

[2]National standard not to be exceeded more than once per year (except for annual standards which are never to be exceeded).

[3]The national ozone standard was revised from 0.08 ppm to 0.12 ppm in January 1979. The number of excesses shown in parentheses is of the old 0.08 ppm standard in effect at the time. Expected Annual Excess is a three-year average of annual excesses of the new 0.12 ppm standard.

[4]California standard not to be equaled or exceeded.

[5]The sulfur dioxide standard is considered to be exceeded only if there is a concurrent excess of the state ozone or suspended particulate standards at the same station. Otherwise, the national standard of 0.14 ppm applies.

[6]Number of observed excess days (measurements taken once every six days).

[7]Ug/M^3: Micrograms per cubic meter.

SOURCE: BAAQMD, 1978 - 1980, Contaminant and Weather Summaries.

APPENDIX H

ECONOMICS[1]

1. COMMERCIAL SPACE IN SAN FRANCISCO

Downtown San Francisco is the office center of the Bay Area. There are approximately 57.3 million square feet of office space in San Francisco.[2] Space in major buildings downtown has been added at a rate of 1.8 million square feet per year during the early 1970s and at a rate of 1.5 million square feet per year during the late 1970s (Table A-1 page A-50) For the decade as a whole, the average rate has been 1.6 million square feet annually.

An additional 9.2 million square feet of office space will be added when the 32 high rise buildings already approved as of February 1982 are built. Another 9.2 million square feet of office space would be added if the 54 projects proposed or under review as of February 1982 were all eventually built. (See Table A-2, page A-51.)

The vacancy rate in downtown office buildings was 1.04% in May 1981 and has been declining - from 8.9% in 1977 to 4.2% in 1978 to 2.6% in 1979 to 2.3% in 1980.[3] Currently, the vacancy rate for modern air-conditioned high rises in the Financial District approaches zero percent.[4] Most space currently under construction is alrady pre-leased.

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[1]This report is based on data prepared by Recht Hausrath and Associates for 101 Montgomery EIR, EE 80.26, certified 7 May 1981.

[2]Department of City Planning, Major Office Building Construction in San Francisco, 1 November 1981, Table 1.

[3]Building Owners and Managers Association (BOMA), telephone communication, 24 June 1981. May 1981 data are not yet available. BOMA's vacancy rate is estimated based on their survey of office buildings, including newer, older, smaller, and larger space.

[4]Edwards, Andrew W., Coldwell Banker Commercial Real Estate Services, "Commercial Real Estate Is In Short Supply in San Francisco," San Francisco Chronicle, June 28, 1981, p. TC3. The Office Network, Inc., National Office Market Report, Spring/Summer 1981 indicates a vacancy rate of 0.4% for office buildings in downtown.

Rents in premium office space range in 1981 from about $22 to $36 per square foot per year, with the higher rents for space in newer buildings.[1] Space on the upper floors of new, top-quality buildings that will go on the market in 1981 are expected to command rents of up to $42 per square foot per year. Downtown office rents have been increasing rapidly. Estimates indicate they are rising by 1 to 2% per month.[2]

Consistently low vacancy rates and rapidly rising rents suggest that demand for space is strong and that the construction of new office space in San Francisco has failed to keep pace with growing demand. Because of this backlog, demand for office space in the next several years will continue to reflect both the growth of office employment and the cumulative shortage of space that now exists.

Retail space in downtown office buildings rents for about $24 to $36 per square foot per year. Vacant retail space in the Financial District is as hard to find as is vacant office space. Completion of the Crocker project (EE 78.298) 2 blocks south of the project site might ease the local shortage of retail space. Space for 65 retail businesses is now under construction in that project.[3]

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[1] 101 Montgomery Street FEIR, EE 80.26, 1981, p. 253. Rents quoted here are gross rents. Also see The Office Network, Inc., National Office Market Report, Spring/Summer 1981, which quotes San Francisco office rents for Class A space in the range of $24.00-$36.00 per square foot per year for existing buildings, and $24.00-$40.00 for buildings under construction.

[2] Recht Hausrath & Associates; and Henrikson, Marcene, "No Place to Grow," San Francisco Business, May 1981, pp. 6-10.

[3] L. Emersen, Assistant Project Manager, Crocker Properties; telephone conversation, 30 March 1981.

2. HOUSING

When new jobs become available in San Francisco, people will become employed in the city who were not employed there before. Those newly employed could have lived either in San Francisco or outside the city before securing their employment. As a result of getting a new job those living outside of the city either could continue to live there or they could move into San Francisco.

Those who move into San Francisco as a result of job growth can be referred to as the "movers." This is the group that is responsible for the housing impact of downtown development. Its size is estimated to be 15 to 30% of the people newly employed in San Francisco as a result of job growth.

Because the 333 California project would increase San Francisco office employment by 2,400 jobs, 360 to 720 workers would move into the city as a result of the project. It is estimated that there are an average of 1.4 San Francisco workers in each San Francisco household that contains dowtown workers.[1] Therefore, the project would result directly in about 257 to 514 households moving into San Francisco.[2]

The estimates above are of those workers who would live in San Francisco only because of the new jobs due directly to the project. Without these new jobs they would not live in San Francisco. The remaining 70 to 85% of the 2,400 office workers would

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[1]This estimate is derived by assuming, based on the SPUR study, that the workers who move will be roughly equally divided between married and single workers. For married workers, San Francisco workers per household were estimated based on the labor force participation rates of spouses of employed people and adjustments for unemployment and the distribution of employed San Francisco residents between jobs inside and outside San Francisco. For unmarried workers, it was assumed that half of them have another adult in their household. Using the labor force participation rates of single people, and making the same adjustments as in the case of spouses, an estimate of the number of San Francisco workers in unmarried households was derived (U.S. Department of Labor, Bureau of Labor Statistics, "Marital and Family Characteristics of the Labor Force, March 1979," Special Labor Force Report 237, January 1981; San Francisco Planning and Urban Renewal Association, Impact of Intensive High Rise Development on San Francisco, June, 1975.)

[2]The Department of City Planning assumes that there are an average of 1.8 San Francisco workers in each household that contains downtown workers, and 40% would live in San Francisco. Using this formula, 960 workers could move to the City, generating a demand for 532 units of housing.

be either people who live outside San Francisco and choose not to move into the City, or people who already live in San Francisco.

The number of "movers" is estimated indirectly by estimating the size of 2 other groups for which there are better data.[1] These 2 groups are:

- The percent of newly employed people who, after getting their jobs, live in San Francisco. This group is estimated to be in the range of 25 to 35% of those newly employed. This includes both those who move into the city because of jobs and those who already live in San Francisco when hired and continue to reside there.

- The percent of people newly employed in San Francisco who, before getting their jobs, already lived in San Francisco. This group is estimated to be between 5 and 10% of those newly employed. These are San Francisco residents who, before getting San Francisco jobs, either did not work or worked outside San Francisco.

The percent of people who move into San Francisco as a result of the new employment is derived by subtracting the second group above from the first. The resultant estimate of housing impact reflects the range of possibilities after combining the sets of estimates identified above. Those who move into San Francisco as a result of downtown job growth are estimated to be 15 to 30% of the people newly employed. The household pattern of these workers is estimated to include 1.4 San Francisco workers per household with a downtown job. Thus, the number of housing units that would be required by those who move into San Francisco would be approximately equal to 11 to 21% of the number of new jobs created in San Francisco.

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[1] For methodology used to estimate housing impact, see 101 Montgome Street FEIR, EE80.26, cert. 7 May 1981, Appendix C, "Housing Concerns Associated With San Francisco Job Growth," pp. 300-309).

It is estimated that about half of all downtown worker households living outside the city could afford to buy a $100,000 house. About 35% could afford a $125,000 house and about 15% could afford $150,000 or more.[1] Because those households that move into the city might not be representative of all households in this pool (they might, instead, be concentrated either among those with a greater or a lesser ability to buy a house), these estimates may not reflect accurately the prices of housing that will be demanded by those who actually do move to the city. If these figures do represent the purchasing ability of those who move to San Francisco, roughly half of them would be expected either to rent or purchase units priced under $100,000, and about half would be expected to purchase housing priced over $100,000.

To the extent the city's housing stock is not expanded at prices affordable to the movers and in sufficient numbers to accommodate them, these workers who move into San Francisco would compete with current residents and others for the available stock of housing. In the process, prices and rents would, in theory, rise more than they otherwise would have. As a result, some renters might not be able to afford the higher rents and would be forced to move. Homeowners would not necessarily be displaced because increased housing prices would not affect their mortgage payments. Higher prices also could mean that other future buyers could find it more difficult to buy a house.

Downtown job growth would enable a greater number and a higher percentage of San Franciscans to work downtown. This is

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[1]The purchasing ability of workers was estimated based on the following data sources and assumptions: 1) data from the SPUR study on the marital status, occupations and incomes (adjusted to 1981) of downtown workers; 2) data on the number of workers per household (see footnote 2, page 5); 3) data from the ABAG Bay Area Housing Profile on the percentage of non-San Francisco households in the Bay Area that own a house; 4) data on average Bay Area housing prices and rates of housing price increases during the 1970s; 5) assumptions about the relative likelihood of single and married workers to own a house, clerical and non-clerical workers to own a house, and clerical and non-clerical workers to be married; 6) the assumption that 15% of all homeowners sell their houses each year. (San Francisco Planning and Urban Renewal Association, Impact of Intensive High Rise Development on San Francisco, June 1975; Association of Bay Area Governments, "1970-1975 San Francisco Bay Area Housing Profile," November 1977; Real Estate Research Council of Northern California, Northern California Real Estate Report, Vol. 32, No. 3, October 1980.) For more detail, see 101 Montgomery Street FEIR, EE 80.26, p. 203.

because, as employment downtown grows, the pool of jobs available to residents will include a greater percentage of jobs downtown and so it will be more likely that they will hold downtown jobs. The more employment growth there is, the larger will be the percentage of residents who work downtown.

For example, if it is assumed that there are 60 million square feet of office space in 1980, then it appears that 23 percent of employed San Francisco residents currently hold downtown office jobs. If, between 1980 and 1990 downtown office space grows by 20 million square feet, that percentage would increase to between 26.5 and 28.3 percent. If the growth is 10 million square feet, the percentage of employed residents working in downtown office jobs also would increase, but by less: to between 24.2 and 25.1%.

Significantly, if there were no growth in downtown office space, in 1990 a smaller percentage of employed San Franciscans--21.9% --would hold downtown office jobs than was true in 1980. This would occur because increases in the number of employed city residents resulting from increased labor force participation rates would not be matched by increases in downtown employment. Thus, a greater proportion of employed San Francisco residents would have to find jobs outside San Francisco or elsewhere in San Francisco.

Newly employed residents (25-35% of job growth) include the people who were already city residents (5-10%) and people who move into the city as a result of getting jobs (15-30%). Job growth downtown would increase the size of both of these groups. The relative size of one group to the other will be determined by the cumulative amount of job growth and the growth of the housing stock, both in San Francisco and elsewhere in the region. The more job growth there is and the more housing stock growth in San Francisco, the larger will be the number of movers relative to those newly employed who already live in San Francisco.

3. CUMULATIVE FISCAL IMPACTS

Since 1979, five studies have been prepared which have analyzed fiscal effects of development in the City's C-3-0 Downtown Office District. The studies were prepared by : Recht,Hausrath and Associates, Sedway/Cooke, Gruen Gruen + Associates (GG+A), Arthur Anderson and Co., and David Jones, and are compared and discussed in the 101 Montgomery Street Final EIR, EE.80.26, pages 189-199.These studies differ in various ways: in the questions they ask, the data sources they use, the methodologies they employ and the conclusions they draw. Table A-11 compares the purpose, study methodology and conclusions of the five studies. Table A-12 is a summary of the major assumptions and conclusions of the Recht Hausrath, Gruen Gruen +Associates, and Sedway/Cooke Study.

Studies done by Arhtur Anderson & Company (Downtown Highrise District Cost Revenue Study, November 1980 for the San Francisco Chamber of Commerce) and by David Jones (Downtown Highrise District Cost Revenue Study, February 1981 for San Franciscans for Reasonable Growth) examine the fiscal impact of the existing downtown. The 3 other studies address the question of what the fiscal impact of new development would be (Gruen Gruen + Associates, The Fiscal Impacts of New Downtown Highrises on the City and County of San Francisco, for the Chamber of Commerce, March 1981; Sedway/Cooke et al., "Fiscal Concerns" in Downtown San Francisco Conservation and Development Planning Program, Phase I Study, October 1979; and Recht Hausrath & Associates, "Fiscal Considerations," Appendix C, 101 Montgomery Street FEIR, EE80.26 certified 7 May 1981). Of these 3, only the Gruen Gruen + Associates study developed estimates of the additional service costs associated with new development.

The main area of possible disagreement with the costs from the Gruen Gruen + Associates study is likely to involve the definition of costs. For example, David Jones criticized the use of a similar "direct cost" definition in the Arthur Anderson study saying that downtown should pay for services provided outside the C-3-0 area as well (noting Citywide recreation and cultural facilities like Golden Gate Park and the Performing Arts complex as examples). There has not been a study that identifies how new downtown development affects costs for these services. Nor is there agreement on definitions or an accepted methodology for how this should be done. Recognizing potential differences in definition, it is still possible to consider the direct costs defined here as at least part, if not all, of the relevant costs of new development. (Also see 101 Montgomery Street FEIR, EE 80.26, page 310, and pages 314-315.)

Table A-11 SUMMARY OF RECENT STUDIES ON DOWNTOWN'S FISCAL IMPACT

STUDY, AUTHOR, DATE	PURPOSE OF STUDY	DATA SOURCES	STUDY METHODOLOGY	CONCLUSIONS
"Fiscal Concerns" in Downtown San Francisco Conservation and Development Planning Program, Phase I Study, Sedway/Cooke, et al., October 1979, pp. 56-59.	To qualitatively assess the likely fiscal impact of new development in the C-3 area under existing zoning ordinances and under Proposition O.	SPUR Study (1975)	SPUR cost/revenue estimates for downtown in 1973 and for projected growth 1974-1990 were assumed. Proposition 13's effect on revenues and the possible need for increased transportation infrastructure were considered. Generalized conclusions about fiscal impact of new development were drawn.	1) After Proposition 13, "costs may exceed revenues in the downtown by as much as 25%." 2) "[N]ew downtown development will not solve the city's growing fiscal problem; without new revenue sources, development will make it worse in the long run."
Downtown Highrise District Cost Revenue Study, Arthur Andersen & Co., November 1980	To quantify for 1976-77 and 1978-79 how much revenue the C-3-O area generated and how much it cost to provide city services to the area.	Data compiled from city records and through conversations with city officials.	The study counted only revenues generated within the C-3-O and costs of providing services to the C-3-O. "The principle guiding the study methodology was to calculate the amount of revenue that San Francisco would lose and the costs that could be reduced if the Downtown Highrise District were a separate city."	The C-3-O generated $56.79 million in 1976-77, or 61% more than the cost of city services to the area. In 1978-79, revenues were $53.29 million, or 48% greater than costs.
"Fiscal Considerations" Appendix C, 101 Montgomery Street DEIR, Recht Hausrath & Associates, January 1981.	To draw generalized conclusions about "how new development downtown in a post-Proposition 13 environment is likely to change the City's fiscal health from what it would be without new development."	SPUR study, city records and conversations with city officials.	Conclusions were drawn about how revenues differ between existing and new buildings, and how costs differ between existing and new buildings. Then, under alternative assumptions about the cost/revenue balance in existing buildings and in new buildings, the fiscal impact over time of new development was compared to that of no new development.	"[A]n on-going process of new development would improve the City's fiscal situation." This beneficial impact would cease if new development were halted. This conclusion is tentative due to uncertainties about increased Muni costs.
Downtown Highrise District Cost/Revenue Study, David Jones, February 1981.	To quantify for 1978-79 the revenues generated by businesses in the C-3-O and the service costs imposed on the city and BART by the C-3-O.	Arthur Andersen study.	The Jones study differs from the Andersen study primarily as follows: 1) Costs of BART (but not revenues to BART) are included; 2) Only revenues paid by businesses and building owners are considered; 3) Muni deficit is computed differently; 4) Most costs are estimated as a percentage of revenues rather than on the basis of actual service demand in the C-3-O.	The C-3-O imposed costs of $94.4 million on San Francisco and BART, or 125% more than the revenues the area's businesses and building owners generated to San Francisco.
Fiscal Impacts of New Downtown High-Rises on the City and County of San Francisco, Gruen · Gruen + Associates, March 1981.	To quantitatively estimate city revenues from the C-3-O and costs of servicing the C-3-O in 1998, assuming the addition of 30 million square feet of building space in the C-3-O between 1981 and 1998.	Arthur Andersen study; data compiled from city records and through conversations with city officials.	"Only direct effects are considered." Costs are only measured for services "provided within the physical limits of the C-3-O district" and revenues are limited to "taxes on buildings within the district and the activities that take place within those buildings." Assumes the Arthur Andersen study is accurate and builds upon it.	In 1980, revenues from the 39 million square feet of building space in the C-3-O were 1.66 times as large as costs. In 1998, after completion of the 30 million square feet of new space, revenues from the entire 69 million square feet of C-3-O building space would increase to 1.92 times as large as costs.

Table A-12 SUMMARY OF MAJOR ASSUMPTIONS AND CONCLUSIONS OF THREE STUDIES OF THE FISCAL IMPACT OF NEW DOWNTOWN DEVELOPMENT

Topic	Assumption or Conclusion of: Recht Hausrath Study	GG+A Study	Sedway/Cooke Study
Are revenues per square foot from new buildings greater than those from old buildings?	Yes (based on an analysis of the effect of Proposition 13)	Yes (based on the Arthur Andersen study and its own revenue estimates)	Does Not Address the Question
Are costs per square foot of servicing new buildings less than or equal to those of old buildings?	Yes (based on SPUR study, its cost allocation methodology, recent EIRs)	Yes (based on the Arther Andersen study and its own cost estimates)	Does Not Address the Question
Do revenues exceed costs initially in new buildings?	Maybe - examines fiscal impact assuming both yes and no	Yes (based on its own cost/ revenue estimates)	Unclear (cites SPUR study that says yes, but adds that transportation costs may change that conclusion)
Do revenues exceed costs in old buildings?	Maybe - examines fiscal impact assuming both yes and no	Yes (based on update of Arthur Andersen study)	No (based on revisions to SPUR study)
Will the city's fiscal situation be better in the future with new development than without it?	Probably yes - but only if new development is on-going	Apparently yes - with new development, the city would be better off in the future than it is today. The future with and without new development is not compared.	No - unless new revenue sources are found.

TABLE A-13

RELOCATION PLANS BY TENANTS
IN BUILDINGS SCHEDULED FOR DEMOLITION[1]

141 BATTERY STREET

Suite #	Organization	Number of Employees	Relocation Plans	Location
455	TRT Telecommunications	4	yes	San Francisco
457-461	Wade Publishing Company	15	not yet	Probably out of S.F. (too expensive)
451	Regan Company	25	yes	San Francisco
557	Mitsui Bank	27	not yet	San Francisco
559	Operations Clearing Group	3	yes	San Francisco (haven't found anything)
651	Connecticut General	38	yes	not sure (haven't been been made yet)
652	Computer Usage	170	yes	Partially out of SF. Partially in SF.
111 Battery Street/ Dave's Coffee Shop		8	not yet	San Francisco

244 PINE STREET

Suite #	Organization	Number of Employees	Relocation Plans	Location
300	Recovery Services International	13	not yet	San Francisco
302	Harris Corporation	8/9	not yet	San Francisco
500	Search Dimensions	6	not yet	San Francisco
501	Harry C. Polonitza	6	yes	San Francisco
502	Dean Stockton & Associates	2	not yet	San Francisco

311 CALIFORNIA STREET ANNEX /333 California

Suite #	Organization	Number of Employees	Relocation Plans	Location
328	Earthquake Engineering	90	yes	San Francisco
520	American Hawaiin Cruises	MOVING OUT	MOVING OUT	MOVING OUT
7th Floor	Edward Jaffee	11	not yet	San Francisco
820	W. H. McGee	22/24	yes	San Francisco
1020	LEX Systems	15/16	yes	San Francisco
11th Floor	Garry Travel	MOVING OUT	MOVING OUT	MOVING OUT
925	Lone Pine Ranch	NO ANSWER	NO ANSWER	NO ANSWER

[1]Survey taken 19 November 1981 by Norland Properties.